

UNITED STATES DEPARTMENT OF COMMERCE

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BUREAU OF FISHERIES

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APPENDIXES

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CONTENTS

	Page
CHECK LIST OF THE FISHES AND FISHLIKE VERTEBRATES OF NORTH AND MIDDLE AMERICA NORTH OF THE NORTHERN BOUNDARY OF VENEZUELA AND COLOMBIA. By David Starr Jordan, Barton Warren Evermann, and Howard Walton Clark. (Document No. 1055. Issued February, 1930).....	1-670

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CHECK LIST OF THE FISHES AND FISHLIKE VERTEBRATES OF NORTH AND MIDDLE AMERICA NORTH OF THE NORTHERN BOUNDARY OF VENEZUELA AND COLOMBIA ¹

By

DAVID STARR JORDAN, BARTON WARREN EVERMANN, and
HOWARD WALTON CLARK

INTRODUCTION

The present memoir comprises a list of all the fishes and fishlike vertebrates known to occur in the waters of north and middle America; more specifically all of continental America north of the Isthmus of Panama, and the outlying islands including the West Indies, the Greater and the Lesser Antilles, Greenland, Iceland, and the islands off the Pacific coast of Central America, Mexico, the United States, and Alaska. The salt-water species on the northern coasts of Colombia and Venezuela have been included. Those of the Galapagos, the Sea of Okhotsk, and the west coast of Kamchatka are not included. Oceanic species in general within the 1,000-fathom curve have been admitted, although it is not always easy to draw the line.

The majority of the species included will be found described in *Fishes of North and Middle America*, a 4-volume work by Jordan and Evermann published in 1896 to 1900 as Bulletin 47 of the United States National Museum. No other general work restricted to this continent and containing descriptions of all known species has been written. On that work was based the Check List of 1896 by Jordan and Evermann, of which the present Check List may be regarded as a revision.

In the present list are given, in as natural sequence as our present knowledge permits, (1) the names of all species and subspecies that the authors admit as valid, (2) as many of the vernacular or common names for each species as have been readily obtainable, (3) the known geographic distribution of each species, (4) the reference to the original description of the species, and (5) the reference to every real synonym. If a species has been described as new but once, there will, of course, be but one reference (as, for example, *Photocorynus spiniceps* on p. 509); if it has been described as new six times there will be six references (as, for example, *Eupomotis gibbosus* on p. 302). Thus, this work is really a check list of all the scientific names that have ever been applied to any American fish.

As 4,139 species and subspecies are admitted as valid, and as there are more than 3,000 real synonyms, it appears that each American fish has been described as new about two times on an average.

The first attempt at a Synopsis of the Fishes of North America was published by David Humphreys Storer in the *Memoirs of the Ameri-*

¹ Appendix X to the Report of the U. S. Commissioner of Fisheries for 1928. B. F. Doc. 1055.

can Academy of Arts and Sciences of Boston in 1846. That work enumerates 739 species distributed in 221 genera. As the fishes of the Rocky Mountain region, Mexico, the Pacific coast, and the West Indies were then scarcely known, this list was very incomplete and the nomenclature naturally was imperfect.

After an elaborate survey of the Pacific coast fish fauna in 1880, David Starr Jordan and the late Charles Henry Gilbert published a Synopsis of the Fishes of North America (1882), including all species known north of the Mexican boundary. The 1,340 species names in that synopsis were arranged in 487 genera; a few other species appeared in the appendix.

Jordan's Catalogue of the Fishes Known to Inhabit the Waters of North America North of the Tropic of Cancer (1887) was based on this synopsis and includes a number of additional species.

In the present memoir we have followed implicitly the rules of nomenclature laid down by the International Commission for Zoological Nomenclature, of which the senior author has been a member since 1908. One single case now under discussion (*Carcharias*) has not been disposed of fully as yet, and the view recommended by Jordan is adopted here tentatively. An important rule set forth by Jordan and Evermann in 1895 has not been acted upon. This rule reads: "We regard all generic names as different unless actually spelled alike." In accordance with decisions of the commission, another rule, which we have followed, is this: "No change is to be made in current nomenclature unless the case is fairly clear; as, for example, a matter of priority." In general we have followed current practice rather than accept questionable changes. One doubtful opinion should not be exchanged for another. The original orthography of all names (misprints aside) has been retained. Some supposed misprints (*Cypsilurus*, *Pachynathus*, etc.) have been referred to the International Commission, whose verdicts have been followed.

In accordance with the decision of the International Commission, we have disregarded (unless revived by later authors) the polynomial generic names of Gronow, Klein, Browne, and other able early writers, who failed to adopt the Linnæan code simply because they had not heard of it. This decision rests not on consideration of justice but upon that of permanence.

The most serious problem in taxonomy is that of the assignment of generic types to the genera of authors who had no conception of types. The "rule of the first reviser" was adopted by the commission at Boston in 1908, and the present writers have endeavored to follow it.

By far the most complete work on North American fishes is that by Jordan and Evermann, mentioned above—the Fishes of North and Middle America. In that work the authors recognized 1,113 genera, 3,263 species, and 133 subspecies—a total of 3,396 species and subspecies. The check list of Fishes and Fishlike Vertebrates of North and Middle America, by Jordan and Evermann, based upon the above and published in 1896, enumerates 3,100 species arranged in 1,053 genera, these being about double those in the Jordan catalogue of 1887, the additions being mainly from Mexico, the West Indies, and the deep seas.

The late modern period in systematic ichthyology is from 1880 to the present time and is especially signalized by the explorations of

the deep sea, of most of the continents, and of fossil beds. The unexampled explorations of Eigenmann in South America belong to this period, as also the records of Boulenger of the fishes of South Africa and the varied researches of Regan in the rich material of the British Museum. In this period the faunas of Australia, Japan, and Siberia have been studied critically and successfully. Our knowledge of fossil fishes is assuming definite form through the work of Woodward, Zittel, Hay, Errol Ivor White, and others who have given vertebrate paleontology, as related to ichthyology, a constructive turn.

We may again emphasize the distinction between the ancient and modern periods in animal taxonomy. Beginning with 1758, the date of Linnæus's *Systema Naturæ*, for 60 years a genus was usually regarded merely as a convenient pigeonhole into which species were thrown. With Cuvier's *Règne Animal* (1817) came the conception of arrangement "according to organization," or comparative anatomy. With Darwin's *Origin of Species*, 40 years later (1859), zoologists began, though slowly at first, to realize that a classification must be more than an inventory; that its basis must be genetic, and that the problems involved in natural grouping are vastly more complex than even great morphologists like Cuvier and Agassiz had realized. To paraphrase a sentence of Elliott Coues, "genera and species are but larger and smaller twigs of a tree, which we try to arrange as nearly as possible in accordance with nature's ramifications." This view, applied to taxonomy, involves the extensive subdivision of accepted genera, many of which were in the highest degree unnatural. Subdivision as practiced in the present paper may go too far in some cases, but our material must be analyzed first before we can group its parts in natural synthesis. No system of naming can progress beyond the knowledge on which it rests. We may emphasize here a statement attributed to Aristotle that "one should never expect a degree of accuracy which the subject matter does not permit."

Each tendency in evolution, large or small, diverging from the main current, should properly stand as a separate genus.

The problem of subspecies among fishes is especially incomplete and confused. Most of the marine species are clearly definable and not often subject to intergradations. Among the fresh-water forms, all sorts of modifications occur. A species, in general, is a definable group of related individuals that have run the gauntlet of life and have endured. Among our river fishes we find species of different types. There are numerous cases of species of compact though often wide distribution, in which all individuals are, to all appearances, similar. Examples of this type are the common perch (*Perca fluviatilis*), the common sucker (*Catostomus commersonii*), and the minnows (*Ercymba buccata* and *Eroglossum macrilingua*). Other forms, which we have elsewhere called geminate or twin species, may be distinct enough, having a few tangible characters of difference in spite of general resemblance. These, for the most part, are set apart from each other by barriers, their distinctness proportional to the efficiency of the barrier. Their origin may be due to the crossing of these barriers by individuals from the mass of their kind, thus acquiring a different environment with a different type of selection. Illustrations of geminate species set off by isolation may be found in abundance, as among the trout of western America, and other species,

especially in the Panama region, where many geminate species are found on each side of the Isthmus, which has split its species from their mates since Miocene times. The Miocene fossil fishes of California are largely geminate in origin, twins or parents of species now appearing on the coast. In most cases such forms are clearly distinct but to all appearance ancestral, the existing distinctions apparently due to varying incidents of selection in varying environment. Geminate species rarely inhabit the same region, though exceptions are known, attributable to reinvasion.

In many cases the distinctions between geminate forms are not complete, intergradations occurring along the line of the barriers or at different sections in climatic range. Types thus connected are known as subspecies. Subspecies are often nascent species; but in most cases a large amount of material is necessary before subspecies can be separated from geminate species. Among fresh-water fishes, each river basin shows some features of distinction, large or small, as does each oceanic island with regard to marine fishes. In most families of American river fishes studies of species have not been extensive enough to establish facts of intergradation. While in birds, reptiles, and mammals the subspecies are usually well defined and named, among the fishes this is still largely a matter of guess-work. Many authors base the recognition of subspecies not on actual intergradation but on guesses based on degrees of probability, a practice we have not followed. It has seemed to us better to regard related forms as distinct species until intergradation has been shown.

We find also among river fishes, and sometimes among marine forms (as in Lutianus), occasional individuals that to all appearance are hybrids. These are marked by a distinct blending of specific traits. They are extremely rare, however, often known only from a single example. A few hybrids are known or suspected among certain minnows, sunfishes, and darters. The best-known hybrids thus far recorded in America occur among the Centrarchidæ, or sunfishes, in which group they have been studied critically by Mr. Hubbs. Two common species (*Apomotis cyanellus* and *Eupomotis gibbosus*) figure particularly as probable parents. Hybrids may give rise to distinct species, but no example of this is known among our fishes.

Among fishes there are also occasional monstrosities, freaks, or "mutations," in which certain traits may be absent or exaggerated. Whether such qualities may be inherited is not known. If so, it is likely that they would soon be swamped by breeding with the mass unless especially protected by segregation. It does not appear that any species of fishes have arisen by mutation or from hybridization, though the latter possibility is greater than the former.

We may observe that compilations such as the present paper should constitute an exercise in modesty. Such work can never be made absolutely complete nor free from errors. It deals with the observations and thoughts of great minds, as also with a degree of ignorance, carelessness, and perversity, by which names have been multiplied without corresponding extension of ideas. Synonymy (the use of different names for the same group) in general represents the lack of exact knowledge or else a failure (often unavoidable) to deal justly with the work of others. It is, therefore, as has been said by Doctor Coues, often "a burden and disgrace to science."

Only those who have had experience in cataloguing, in a similar way, the species in some large group of animals or plants can appreciate the difficulties involved. In the first place, in order to make the list complete by the inclusion of all valid names and all real synonyms it was necessary to make a careful search of all ichthyological literature. It is too much to expect that we have been entirely successful in this search; some names probably have been overlooked. The verification of the thousands of references as to the publication, volume, page, date, spelling, and type locality, was even more exacting and arduous; but most difficult of all were the multitude of taxonomic problems involved. In many cases existing knowledge is not adequate for final settlement. It is not improbable that some of our decisions as to the taxonomic relationships of certain species and the validity of others may not meet the approval of all of our coworkers, but that is inevitable where knowledge is incomplete.

The present senior author, as a lifelong teacher of biology, may be pardoned a personal reference. Himself a student of Agassiz and Gill of the earlier period, he has had the honor of being also a friend, to some extent a protégé, of Baird, Günther, Vaillant, Lütken, Hilgendorf, and Cope. In addition, he has numbered among his own students many of those active in systematic ichthyology during the late modern period. Among these are James Francis Abbott, Willis Stanley Blatchley, Charles Harvey Bollman, Alembert Winthrop Brayton, Charles Victor Burke, Howard Walton Clark*, Herbert Edson Copeland, Frank Cramer, George Bliss Culver, Bradley Moore Davis, Mary Cynthia Dickerson, Charles Lincoln Edwards, Carl H. Eigenmann, Rosa Smith Eigenmann, Barton Warren Evermann, Bert Fesler, Morton William Fordice, Henry Weed Fowler, Charles Henry Gilbert, James Zaccheus Gilbert, David Kop Goss, Ulysses Simpson Grant IV, Arthur White Greeley, Joseph Grinnell, Harold Hannibal, Edmund Heller, Albert William Christian Theodore Herre, Jennie Horning, Carl Leavitt Hubbs, Elizabeth G. Hughes, Oliver Peebles Jenkins, Eric Knight Jordan, Philip Henry Kirsch, Richard Crittenden McGregor, Ernest Alexander McGregor, Charles Leslie McKay, Seth Eugene Meek, Charles William Metz, Heraclio R. Montalban, George Sprague Myers, Edward William Nelson, Robert Newland, Masamitsu Oshima, Keinosuke Otaki, Charles J. Pierson, Cora D. Reeves, Robert Earl Richardson, Cloudsley Rutter*, Norman Bishop Scofield, Alvin Seale, Michitaro Sindo, Tage Skogsberg, Robert Evans Snodgrass, John Otterbein Snyder, Edwin Chapin Starks, Joseph Swain, Shigeo Tanaka, Lionel William Wiedey, Wilbur Wilson Thoburn, Joseph C. Thompson, William Francis Thompson, Deogracias Villiamin Villadolid, Yojiro Wakiya, Frank Walter Weymouth, Thomas Marion Williams, and Albert Jefferson Woolman.*

Those marked with an asterisk have also been students of Doctor Evermann, as have also the following: Frederick Morton Chamberlain, Ulysses Orange Cox, Samuel Frederick Hildebrand, Chancey Juday, William Converse Kendall, Clarence Hamilton Kennedy, William J. Moenkhaus, John Treadwell Nichols, Lewis Radcliffe, Josiah Thomas Scovell, and Alfred Cleveland Weed.

Many of these have made important contributions to our knowledge of fishes.

The preparation of this Check List has extended over a period of more than 20 years. It was begun in 1906 by the senior authors,

who worked upon it from time to time, as their other duties permitted, until 1925, when they were joined by the junior author, who thereafter gave most of his time to the work until its completion. The senior authors also have devoted much of their time to it since 1925.

During the progress of the work the authors have endeavored to consult and utilize every record bearing on the fish fauna of America. In addition to this they have received invaluable assistance and suggestions from virtually every present-day student of American fishes, among whom special mention should be made of the late Dr. Charles Henry Gilbert and Prof. John Otterbein Snyder of Stanford University, Dr. William Converse Kendall of the United States Bureau of Fisheries, Dr. Carl Leavitt Hubbs of the University of Michigan, George Sprague Myers of Stanford University, Barton Appler Bean of the United States National Museum, William Francis Thompson of the International Fisheries Commission, Dr. Arthur W. Henn of the Carnegie Museum, John Treadwell Nichols and Dr. E. W. Gudger of the American Museum of Natural History, and many others. To all these we express our indebtedness and grateful appreciation. For clerical assistance of one kind or another, particularly in looking up and verifying references, we are greatly indebted to Miss Jessie E. Drayton, Harry J. Christoffers, and Henry D. Aller, of the United States Bureau of Fisheries. Without the assistance so generously given by these and others, this memoir could hardly have been completed.

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CALIFORNIA ACADEMY OF SCIENCES,
January 4, 1928.

Class I. LEPTOCARDII. Lancelets

Order A. CIRROSTOMI. Cirrostomes

Family 1. BRANCHIOSTOMIDÆ. Lancelets

Genus 1. BRANCHIOSTOMA Costa.

Branchiostoma Costa, Cenni Zoologici Napol., 49, 1834 (*B. lubricum* Costa=*lanceolatus* Pallas).

Amphioxus Yarrell, Hist. Brit. Fishes, 1836, 468 (*Limax lanceolatus* Pallas).

Amphioxides ² Gill, Amer. Nat., XXIX, 1895, 458 (*Branchiostoma pelagicum* Günther).

1. *Branchiostoma virginiae* ³ Hubbs. *Virginia lancelet*.

Shallow waters, burying itself in the sand, from Chesapeake Bay to Florida; Beaufort, Cape Lookout, etc.

Branchiostoma virginiae Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 105, 8, July 6, 1922, Sewall's Point, Va.

2. *Branchiostoma floridæ* Hubbs. *Florida lancelet*.

Coasts of Florida; Tampa, Pensacola, Cape Romans, St. Martin's Reef, Snapper Banks, etc.

Branchiostoma floridæ Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 105, 7, July 6, 1922, Tampa Bay, Fla.

3. *Branchiostoma bermudæ* Hubbs. *Bermuda lancelet*.

Bermuda Islands.

Branchiostoma bermudæ Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 105, 9, July 6, 1922, Bermuda.

4. *Branchiostoma caribæum* ⁴ Sundevall. *West Indian lancelet*.

West Indies.

Branchiostoma caribæum Sundevall, Vet. Akad. Förhandl., XI, 1853, 12, St. Thomas.

5. *Branchiostoma californiense* Gill. *California lancelet*; *California amphioxus*.

Pacific coast of America from San Diego Bay southward to San Luis Gonzales Bay, Gulf of California; reported also from Panama. Abundant in shallow water, buried in the sand.

Branchiostoma californiense Gill, in Andrews, Studies Biol. Lab. Johns Hopkins Univ., V, 1893, 235, San Diego.

Family 2. EPIGONICHTHYIDÆ

Genus 2. ASYMMETRON Andrews.

Asymmetron Andrews, Studies Biol. Lab. Johns Hopkins Univ., V, 1893, 237 (*A. lucayanum* Andrews).

6. *Asymmetron lucayanum* Andrews. *Bahama lancelet*; *Bahama amphioxus*.

West Indies; Bemini and Nassau, Bahamas; Culebra Island; Humacao, Porto Rico; south to Brazil. Common.

Asymmetron lucayanum Andrews, Studies Biol. Lab. Johns Hopkins Univ., V, 1893, 237, Bemini, Bahamas.

² Based on larvæ showing no buccal cirri, found in the open sea near Hawaii.

³ Until the recent studies of Hubbs, this species was wrongly identified with the European form (*B. lanceolatum*), which, however, does not occur in America.

⁴ Represented on the coast of Brazil (Rio Janeiro, etc.) by *B. platæ* Hubbs.

Class II. CYCLOSTOMI. Lampreys

Order B. HYPEROTRETA. Hagfishes

Family 3. MYXINIDÆ. Hagfishes

Genus 3. MYXINE Linnæus.

Myxine Linnæus, Syst. Nat., ed. X, 1758, 650 (*M. glutinosa* L.).

Gastrobranchus Bloch, Ichth., XII, 1797, 51, tab. 413 (*G. cæcus* Bloch).

Muraenoblenna Lacépède, Hist. Nat. Poiss., V, 1803, 647 (*M. olivacea* Lacépède).

Anopsus Rafinesque, Anal. Nat., 1815, 93 (*M. olivacea* Lacépède).

7. *Myxine limosa* Girard. Hagfish; Borer; Sucker; Slimefish.

Newfoundland, south to Cape Cod; Grand Manan Island, New Brunswick; replacing in the western Atlantic the European *M. glutinosa* L.; not abundant.

Myxine limosa Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 224, Grand Manan.

Family 4. EPTATRETIDÆ. Borers

Genus 4. POLISTOTREMA Gill.

Polistotrema Gill, Proc. U. S. Nat. Mus., IV, 1881, 30 (*Gastrobranchus dombey* Cuvier).

8. *Polistotrema stoutii* (Lockington). California hagfish; Lamperina.

Coast of California; common in Monterey Bay; Eel River, Humboldt Co., Calif., and other streams of northern California; San Francisco Bay.

Bdelostoma stoutii Lockington, Amer. Nat., XII, December, 1878, 793, Eel River, Calif.

9. *Polistotrema deani* Evermann and Goldsborough.

Alaska to Santa Barbara, Calif., in deep water.

Polistotrema deani Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 225, fig. 1, Albatross station 4238 in Behm Canal off Nose Point in 229 to 231 fathoms.

Polistotrema curtiss-jamesii Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII, 1925, 4, off California, lat. 34° to 36° in 440 to 585 fathoms.

Order C. HYPEROARTIA. Lampreys

Family 5. PETROMYZONIDÆ. Lampreys

Genus 5. PETROMYZON Linnæus.

Petromyzon (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 230 (*P. marinus* L.).

Ammocates Duméril in Cuvier, Règne Anim., ed. I, 1817, 119, variant spelling of *Ammocætus*, a name given to a larval form (*branchialis*).

Bathymyzon Gill, Proc. U. S. Nat. Mus., VI, 1883, 25 (*Bathymyzon bairdii* Gill); probably an old example that has lost teeth.

Oceanomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 461 (*O. wilsoni* Fowler); like the preceding, supposed by Creaser and Hubbs to be an old individual from the Gulf Stream.

10. *Petromyzon marinus* Linnæus. Great sea lamprey; Lamprey eel; Sucker; Lamprey; River lamprey; Green lamprey; Shad lamprey; Nine-eyes.

Atlantic coasts of Europe and America, southward in America to Chesapeake Bay; abundant northward; ascending streams to spawn.

Petromyzon marinus Linnæus, Syst. Nat., ed. X, 1758, 230, European seas. *Petromyzon americanus* LeSueur, Trans. Amer. Phil. Soc. Phila., I, 1818, 383, coast of Massachusetts.

Petromyzon nigricans LeSueur, loc. cit., 385, Massachusetts; small example from fresh water.

Ammocates bicolor LeSueur, loc. cit., 386, Northampton, Mass. (larva).

? *Petromyzon* (*Bathymyzon*) *bairdii* Gill, Proc. U. S. Nat. Mus., VI, 1883, 254, Gulf Stream, north lat. 40° 02', west long. 68° 50' 30'', in 547 fathoms.

? *Oceanomyzon wilsoni* Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 461; open sea.

11. *Petromyzon marinus dorsatus* Wilder. *Lake lamprey*; *Mud lamprey*.
Landlocked in Cayuga Lake and other lakes of western and central New York.

Petromyzon marinus dorsatus Wilder, in Jordan and Gilbert, Synop. Fishes North Amer., 1883, 869, Cayuga Lake, N. Y.

Genus 6. ICHTHYOMYZON Girard. River lampreys.

Ichthyomyzon Girard, Pac. R. R. Surv., X, 1858, 381 (*Petromyzon argenteus* Kirtland).

Scolecocosoma Girard, loc. cit., 385 (*Ammocetes concolor* Kirtland); larva of *argenteus*.

12. *Ichthyomyzon concolor* (Kirtland). *Silver lamprey*.

Great Lakes; upper Mississippi Valley; tributaries of Hudson Bay; south to Arkansas and Louisiana.

Petromyzon argenteus Kirtland, Zool. Ohio, 170, 1838, 197, Big Miami River, Ohio; name preoccupied.

Ammocetes concolor Kirtland, Jour. Bost. Soc. Nat. Hist., III, 1840, 473, plate, Mahoning River; Scioto River; larva.

Petromyzon bdellium Jordan, Cat. Fishes North Amer., 1885, 4; after Kirtland.

Ichthyomyzon castaneus Girard, Pac. R. R. Surv., X, 1858, 381, Galena, Minn.

Ichthyomyzon hirudo Girard, loc. cit., 382, Fort Smith, Ark.

Genus 7. REIGHARDINA Creaser and Hubbs.

Reighardina Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 4 (*Ichthyomyzon fossor* Reighard and Cummins = *Ammocetes unicolor* DeKay).

13. *Reighardina unicolor* (DeKay).

Ammocetes unicolor DeKay, N. Y. Fauna: Fishes, 1842, 383, pl. 79, fig. 250; Lake Champlain.

Ammocetes borealis Agassiz, Lake Superior, 1850, 252, Michigan River, Mich.

Ichthyomyzon fossor Reighard and Cummins, Occ. Papers Mus. Zool. Univ. Mich., 31, 1916, 1 to 12, pl. 1, 2, Michigan.

Genus 8. LETHENTERON Creaser and Hubbs.

Lethenteron Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 6 (*Lampetra wilderi* Gage = *Petromyzon appendix* DeKay).

14. *Lethenteron appendix* (DeKay). *Small black lamprey*; *Brook lamprey*.

New York to Iowa, in tributaries of the Great Lakes and of the Ohio and Mississippi, south to Virginia.

Petromyzon nigrum Rafinesque, Ichth. Ohiensis, 1820, 84, falls of Ohio River; name preoccupied.

Petromyzon appendix DeKay, N. Y. Fauna: Fishes, 1842, 381, pl. 64, fig. 211, Providence; Hudson Bay.

Lampetra wilderi Gage, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 13, Cayuga Lake, N. Y.

Genus 9. TETRAPLEURODON Creaser and Hubbs.

Tetrapleurodon Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 9 (*Lampetra spadicea* Bean).

15. *Tetrapleurodon spadiceus* (Bean). *Mexican lamprey*.

Known only from the Rio Lerma, near Guanajuato, and from Lago de Chapala, Mexico.

Lampetra spadicea Bean, Proc. U. S. Nat. Mus., X, 1887, 374, Pl. XX, fig. 6, Rio Lerma, Guanajuato, Mexico.

Genus 10. ENTOSPHEENUS Gill.

Entosphenus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 (*Petromyzon tridentatus* Gairdner).

16. *Entosphenus tridentatus* (Gairdner). *Three-toothed lamprey; Western lamprey.*
Pacific coast of America, from southern California to Unalaska; ascending streams even to the headwaters of the Columbia for spawning purposes.
Petromyzon tridentatus Gairdner, in Richardson, Fauna Bor.-Amer., 1836, 293, falls of the Willamette River, Oreg.
Petromyzon lividus Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 379, Willamette River, Oreg.
Petromyzon astori Girard, loc. cit., 380, Astoria, Oreg.
Ammocetes cibarius Girard, loc. cit., 383 (larva).
17. *Entosphenus ciliatus* (Ayres).
Streams of northern California.
Petromyzon ciliatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 43, San Francisco.
Petromyzon epihexodon Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331, Fort Reading, Calif.
- Genus 11. **LAMPETRA** (Bonnaterre) Gray. *Brook lampreys.*
Lampetra Bonnaterre, Enc. Meth., 1788; no paging; no type, used for all.
Lampreda Rafinesque, Anal. Nat., 1815, 94 (no species named; no description.
Pricus Rafinesque, loc. cit. (no species named); no description.
Lampetra Gray, Proc. Zool. Soc. Lond., 1851, 236 (*Petromyzon fluvialis* L.).
18. *Lampetra ayresii* (Günther). *Western lamprey.*
Pacific coast of North America from the Fraser River southward to the Sacramento; very close to *L. fluvialis* of Europe.
Petromyzon plumbeus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 27, San Francisco; name preoccupied.
Petromyzon ayresii Günther, Cat., VIII, 1870, 505, San Francisco; substitute for *plumbeus* Ayres, preoccupied.
19. *Lampetra borealis* (Girard). *Arctic lamprey.*
Streams of northern Alaska and Kamchatka.
Petromyzon borealis Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 377, Great Slave Lake; not *Ammocetes borealis* Agassiz.
Ammocetes aureus Bean, Proc. U. S. Nat. Mus., IV, 1881, 159, Yukon River.
- Genus 12. **OKKELBERGIA** Creaser and Hubbs.
Okkelbergia Creaser and Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 120, 1922, 8 (*Petromyzon lamotteni* LeSueur).

20. *Okkelbergia lamotteni* (LeSueur).
Petromyzon lamotteni LeSueur, New York Fauna: Fishes, 1842, 382, pl. 79, fig. 249; no locality.
Ammocetes æpyptera C. C. Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 327 (type redescribed by Fowler, *ibid.*, 1901, 328; 1907, 466).

Class III. ELASMOBRANCHII. (Selachii, Plagiostomata, Chondropterygii, Antacca). Sharks; Skates and rays; Chimæras

Subclass SELACHII. Sharks

Order D. CESTRACIONTES

Suborder PROARTHRI

Family 6. HETERODONTIDÆ. Bullhead sharks

Genus 13. GYROPLEURODUS Gill.

- Gyropleurodus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 and 489 (*Cestracion francisci* Girard).
Tropidodus Gill, loc. cit., 489 (*Cestracion pantherinus* Valenciennes = *Cestracion quoyi* Fréminville).

21. *Gyropleurodus francisci* (Girard). *Bullhead shark.*
Coast of California; abundant south of Point Conception.
Cestracion francisci Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, Monterey Bay, Calif.

Order E. NOTIDANI. (Diplospondyli)

Suborder OPISTHARTHRI

Family 7. HEXANCHIDÆ. Cow sharks

Genus 14. HEXANCHUS Rafinesque.

Hexanchus Rafinesque, Caratteri, etc., 1810, 14 (*Squalus griseus* Bonnaterre).

Notidanus Cuvier, Règne Anim., ed. 1, 1817, 128 (*Squalus griseus* L.).

Monopterhinus Blainville, Faune Française, 1828, 77 (*Squalus griseus* Gmelin).

22. *Hexanchus griseus* (Bonnaterre). Cow shark; *Caffa bota*.

Mediterranean to Scotland; Cuba.

Squalus griseus Bonnaterre, Ichth. R. 1788, 9; Mediterranean; after *le grisel* Bonnaterre.

Squalus griseus Gmelin, Syst. Nat., I, 1795, 1789; after Broussonet.

23. *Hexanchus corinus* Jordan and Gilbert. Shovel-nosed shark.

Pacific coast of America; Monterey Bay to Puget Sound.

Hexanchus corinus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880 (December 21), 352, Neah Bay, Wash., and Soquel, Calif.

Genus 15. NOTORYNCHUS Ayres.

Notorynchus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 73 (*Notorynchus maculatus* Ayres).

24. *Notorynchus maculatus*⁵ Ayres.

Pacific coast of the United States, from Monterey Bay northward to Washinton; common northward, especially in Humboldt and San Francisco Bays.

Notorynchus maculatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 72, San Francisco Bay.

Notorhynchus borealis Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 150, Nisqually, Wash.

Order F. EUSELACHII

Suborder GALEI. True sharks

Family 8. SCYLLIORHINIDÆ. Cat sharks

Genus 16. SCYLLIORHINUS Blainville. Roussettes.

Catulus Valmont, Dict. Raisonnée, IV, 1768, 451 (*C. saxatilis* Valmont = *Squalus stellaris* L.); non binominal.

Catulus Smith, Proc. Zool. Soc. Lond., 1837, 85 (*Scyllium capense* Smith); name preoccupied by *Catulus* Kniphof, 1759, a genus of insects.

Scylliorhinus Blainville, Jour. Phys., 1816, 263 (*Squalus canicula* L., as restricted); spelled *Scylliorhinus* by Garman.

Scyllium Cuvier, Règne Anim., ed. I, 1817, 124 (*Squalus canicula* L., as restricted).

25. *Scylliorhinus retifer* (Garman).

Gulf Stream in deep water; occasionally off South Atlantic coast.

Scyllium retiferum Garman, Bull. Mus. Comp. Zool., VIII, 1881, 233, off coast of Virginia in deep water.

26. *Scylliorhinus cephalus* (Gilbert).

Gulf of California and southward in deep water.

Catulus cephalus Gilbert, Proc. U. S. Nat. Mus., XV, 1891, 541, deep water near the Revillagigedo Islands and in the Gulf of California.

Genus 17. CEPHALOSCYLLIUM Gill.

Cephaloscyllium Gill, Ann. Lye. Nat. Hist. N. Y., VII, 1861, 407, 412 (*Scyllium laticeps* A. Duméril).

⁵ Regarded by Garman as identical with *N. platycephalus* (Tenore) of the Mediterranean.

27. **Cephaloscyllium uter** (Jordan and Gilbert). *Swell shark*.
 Monterey to San Diego; very abundant in Santa Barbara channel.
Catulus uter Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 25; Monterey, San Diego, and Santa Barbara Channel.
- Genus 18. **APRISTURUS** Garman.
Apristurus Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 96 (*Scylliorhinus indicus* Brauer).
28. **Apristurus brunneus** (Gilbert).
 Gulf of California and northward in deep water; Monterey Bay; Puget Sound; Hood Canal.
Catulus brunneus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 542, Gulf of California.
29. **Apristurus profundorum** (Goode and Bean).
 North Atlantic, in deep water.
Scylliorhinus profundorum Goode and Bean, Oceanic Ichth., 1896, 17, Gulf Stream.
- Genus 19. **PRISTIURUS** (Bonaparte) Müller and Henle.
Pristiurus Bonaparte, Prospetto del Systema d'Ittiologia Generale, 1831, 121 (*Galeus melanostomus* Rafinesque); name only; defined in Iconographia della Fauna Italica, 1841 (no paging).
Pristiurus Müller and Henle, Mag. Nat. Hist., III, Jan., 1838, 341 (*Galeus melanostomus* Rafinesque).
Pristidurus Bonaparte, Mem. Soc. Sci. Neufchâtel, II, 1839, 11, variant spelling.
30. **Pristiurus xaniurus** (Gilbert).
 Pacific coast of southern and Lower California; abundant in deep water.
Catulus xaniurus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 540, off southern and Lower California in 184 to 684 fathoms.
31. **Pristiurus aræ** Nichols.
 Off the coast of Florida.
Pristiurus aræ Nichols, Amer. Mus. Novit., No. 256, March 12, 1927, 1, off the coast of Florida.

Family 9. GINGLYMOSTOMIDÆ. Nurse sharks

- Genus 20. **GINGLYMOSTOMA** Müller and Henle.
Ginglymostoma Müller and Henle, Wiegmann's Archiv, I, 1837, 396 (*Squalus cirratus* Gmelin).
32. **Ginglymostoma cirratum** (Gmelin). *Nurse shark; Gata*.
 West Indies and the west coast of Mexico; Cape Verde Islands; occasional on our South Atlantic coast.
Squalus cirratus Gmelin, Syst. Nat., I, 1492, 1788, American seas; after Broussonet.
Squalus punctatus Bloch and Schneider, Syst. Ichth., 1801, 134, Cuba; after Gata Hispanus of Parra.
Squalus punctulatus Bloch and Schneider, loc. cit., 549, Cayenne.
Squalus argus Bancroft, Zool. Jour., V, 1832, 82, West Indies.
Ginglymostoma fulrum Poey, Memorias, II, 1861, 342, Habana; young.
Ginglymostoma caboverdianus Capello, Jour. Sci. Math. Phys. Nat. Lisbon, 1867, 167, Cape Verde Islands.

Family 10. PSEUDOTRIAKIDÆ

- Genus 21. **PSEUDOTRIAKIS** Capello.
Pseudotriakis Capello, Jour. Sci. Math. Phys. Nat. Lisbon, IV, 1867, 321 (*Pseudotriakis microdon* Capello).
33. **Pseudotriakis microdon** Capello. *Peixe carago*.
 Portugal; Amagansett, Long Island.
Pseudotriakis microdon Capello, Jour. Sci. Math. Phys. Nat. Lisbon, 1868, 321, pl. 5, fig. 1, Portugal.

Family 11. CARCHARIIDÆ. Gray sharks

Genus 22. CYNIAS Gill.

Cynias Gill, Proc. U. S. Nat. Mus., XXVI, 1903, 960 (*Squalus canis* Mitchill); embryos without placental attachment.

Mustelus Valmont de Bomare, Dict. Raisonné, ed. II, 1768, 786 (*Galeus asterias* Valmont = *Squalus canis* Mitchill; not given as a scientific name but as Latin vernacular).

34. *Cynias canis* ⁶ (Mitchill). Dog shark; Dogfish; Smooth dogfish; Blue dog. Cape Cod to Cuba; abundant on the Atlantic coast of both continents.

Squalus canis Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 486, New York.

Mustelus asterias Cloquet, Dict. Raisonné, 1820, 407, Europe.

Mustellus stellatus Risso, Europ. Mérid., III, 1826, 1126, Nice.

Mustelus plebejus Bonaparte, Fauna Italica, Pesci, Fasci., Tome III, 1834, 43, pl. 132, Italy.

35. *Cynias lunulatus* (Jordan and Gilbert). Gato.

West coast of Mexico; common in Gulf of California.

Mustelus lunulatus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 108, Mazatlan, Mexico.

Genus 23. MUSTELUS Linck.

Mustelus Linck, Magazin für Neueste aus Physik und Naturgeschichte, 1790, 31 (*Squalus mustelus* Linnæus); not of Valmont de Bomare.

Galeus ⁷ Rafinesque, Caratteri, 1801, 13 (*Squalus mustelus* L., as restricted by Jordan and Gilbert).

Mustelus Leach, Observ. Squalus, 1813, 62 (*Squalus mustelus* L.).

Mustelus Cuvier, Règne Anim., ed. I, 1817, 128 (*Squalus mustelus* Cuv.).

Pleuracromylon Gill, Proc., Acad. Nat. Sci. Phila., XVI, 1864, 148, (*Mustelus lævis* Risso); embryo attached by a placenta.

36. *Mustelus mustelus* (Linnæus). Smooth hound; Boce dulce.

Southern Europe; occasional in America, lately taken on coast of New Jersey.

Squalus mustelus Linnæus, Syst. Nat., ed. X, 1758, 235, Europe.

Mustelus lævis Risso, Europ. Mérid., 1826, 327, Nice; and of European writers generally.

Galeus mustelus Rafinesque, Caratteri, 1910.

37. *Mustelus californicus* Gill.

California, north to Cape Mendocino.

Mustelus californicus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 148, San Francisco.

38. *Mustelus dorsalis* Gill.

Panama and neighboring waters, north to Gulf of California.

Mustelus dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 149, Panama.

Mustelus mento Cope, Proc. Amer. Phil. Soc., XVII, 1877, 47, Pacific Ocean at Pacasmayo, Peru.

Genus 24. RHINOTRIACIS Gill.

Rhinotriacis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 486 (*Rhinotriacis henlei* Gill).

⁶ The European synonymy of *Mustelus mustelus* and *Cynias canis* is in a state of great confusion, as few of the earlier writers recognized any difference between the two species externally very much alike.

⁷ The genus *Galeus* of Rafinesque was based on species with spiracles, differing from *Squalus* by the presence of an anal fin. One new species is described, *Galeus melastomus*, later type of Bonaparte's genus *Pristiurus*; but on the same page and the next page Rafinesque speaks of other species—*Galeus vulpecula*, *G. catulus*, and *G. mustelus*. It is plain that *Squalus galeus* L. was his intended type, after the general custom of writers who elevated species to the rank of genus; but he does not mention that species in the paper nor in his Index, and as *Squalus galeus* was therefore not available as type, Jordan and Gilbert selected *Squalus mustelus* for that purpose, thus making *Galeus* Rafinesque a synonym of *Mustelus* Leach, rather than to displace *Pristiurus*. Apparently this procedure was allowable, unless some earlier author had chosen either *Pristiurus melastomus* or *Scylliorhinus catulus* (canicula) for that purpose.

39. *Rhinotriacis henlei* Gill.

Coast of California from Humboldt Bay to Monterey; rather rare.

Rhinotriacis henlei Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 486, San Francisco.

Genus 25. *TRIAKIS* Müller and Henle.

Triakis Müller and Henle, Mag. Nat. Hist., II, 1838, 36 (*Triakis scyllium*); corrected to *Triacis* by authors.

40. *Triakis semifasciatum* Girard. *Cat shark*; *Leopard shark*.

Cape Mendocino to San Diego; common.

Triakis semifasciatum Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, Presidio de San Francisco.

Mustelus felis Ayres, Proc. Calif. Acad. Nat. Sci., 1854, 17, San Francisco.

Genus 26. *GALEORHINUS* Blainville.

Galeorhinus Blainville, Bull. Soc. Philom., 1816, 121 (*Squalus galeus* L.; restricted by Gill).

Eugaleus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 148 (*Squalus galeus* L.); the first species named by Blainville being *Squalus mustelus*, for which reason Garman uses *Galeorhinus* as the name of the genus here called *Mustelus*.

41. *Galeorhinus zyopterus* Jordan and Gilbert. *Oil shark*; *Soup-fin shark*.
Coast of southern and Lower California, from San Francisco to Cedros Island; very abundant.

Galeorhinus zyopterus Jordan and Gilbert, Synop. Fishes North Amer., 1883, 871, San Pedro, Calif.

Genus 27. *TRIÆNODON* Müller and Henle.

Triænodon Müller and Henle, Plagiostomen, 1841, 55 (*Carcharias obesus* Rüppell).

42. *Triænodon obesus* (Rüppell).

Tropical Pacific; reported from Cocos Island.

Carcharias obesus Rüppell, Neue Wirbel., Fisch., 1835, 64, pl. 18, fig. 2, Djidda, Arabian Coast of Red Sea.

Genus 28. *GALEOCERDO* Müller and Henle.

Galeocerdo Müller and Henle, Plagiostomen, 1838, 59 (*Galeocerdo tigrinus* Müller and Henle).

Boreogaleus Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 411 (*Squalus arcticus* Faber).

43. *Galeocerdo arcticus* (Faber). *Spotted shark*; *Leopard shark*; *Tiger shark*; *Tigrone*.

Tropical seas; occasionally to Iceland, Cape Cod, and San Diego.

Squalus arcticus Faber, Fische Islands, 1829, 17, Iceland and neighboring seas.

Galeocerdo tigrinus Müller and Henle, Plagiostomen, 1838, 59, Pondicherry.

Galeus maculatus Ranzani, De Novis Speciebus Piscium, Dissert. Prima, in Novi Com. Acad. Boron., IV, 1840, 68, Brazil.

Genus 29. *HEMIGALEUS* Bleeker.

Hemigaleus Bleeker, Verh. Bot. Gen., XIV, 1852, 45 (*Hemigaleus microstoma* Bleeker); not *Hemigalea*, an earlier genus of mammals.

44. *Hemigaleus pectoralis* Garman.

Coast of New England, probably in the Gulf Stream.

Hemigaleus pectoralis Garman, Bull. Mus. Comp. Zool., XLIV, 1906, 203, "Aquarial Gardens," the fishes in which were taken off Massachusetts and Rhode Island.

Genus 30. *SCOLIODON* Müller and Henle.

Scoliodon Müller and Henle, Wiegmann's Archiv, I, 1837, 398 (*Scoliodon laticaudus* Müller and Henle).

45. *Scoliodon terræ-novæ* (Richardson). *Sharp-nosed shark*; *Newfoundland shark*.

Cape Cod to Florida; very common southward along the Atlantic coast.

Squalus (Carcharias) terræ-novæ Richardson, Fauna Bor.-Amer., III, 1836, 289, Newfoundland; an error, probably for Florida.

Squalus punctatus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 483, New York; not of Bloch and Schneider.

46. *Scoliodon lalandi* (Müller and Henle).
West Indies to Brazil.
Carcharias lalandi Müller and Henle, Plagiostomen, 1838, 30, Rio Janeiro; Martinique; Guadeloupe.
47. *Scoliodon porosus* (Poey).
Cuba.
Squalus porosus Poey, Memorias, II, 1861, 339, tab. 19, L. 11, 12, Habana.
48. *Scoliodon longurio* (Jordan and Gilbert).
Pacific coast of Mexico.
Carcharias longurio Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 106, Mazatlan, Mexico.
- Genus 31. **APRIONODON** Gill.
Aprion Müller and Henle, Plagiostomen, 1838-1841, 31 (*Carcharias isodon* Müller and Henle); preoccupied.
Aprionodon Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 411 (*Aprionodon punctatus* Gill; not *Squalus punctatus* Mitchill = *Carcharias isodon* Müller and Henle).
49. *Aprionodon isodon* (Müller and Henle).
Atlantic Ocean; recorded from New York, Virginia, and Cuba; probably rare.
Carcharius isodon Müller and Henle, Plagiostomen, 1838, 32, New York.
Carcharius punctatus Günther, Cat., VIII, 1870, New York; not *Squalus punctatus* Mitchill, which is *Scoliodon terræ-novæ*.
- Genus 32. **CARCHARIAS** Rafinesque. *Gray shark; Requin.*
Carcharias Rafinesque, Caratteri, 1810, 10 (*Squalus carcharias* L. intended, but *Carcharias taurus* the only species mentioned).
Carcharhinus Blainville, Bull. Soc. Philom., 1816, 264 (*Squalus commersonii* Blainville, apparently the same as *Carcharias lamia* Rafinesque).
Carcharias Cuvier, Règne Anim., ed. I, 1817, 125 ("Squalus carcharias," *Carcharias lamia* intended); not of Rafinesque.
Eulamia Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 401 (*Carcharias lamia* Rafinesque; *Squalus commersonii* Blainville being intended = *Carcharias lamia* Rafinesque was *Carcharodon carcharias* Rafinesque, the specific name being a substitute for *Squalus carcharias* L.).
Platypodon Gill, loc. cit. (*Carcharias menisorrh* Müller and Henle).
Isogomphodon Gill, loc. cit. (*Carcharias oxyrhynchus* Müller and Henle).
Lamiopsis Gill, loc. cit. (*Carcharias temmincki* Müller and Henle).
Isoplagiodon Gill, loc. cit. (*Carcharias sorrah* Müller and Henle).
50. *Carcharias commersonii* (Blainville). *Cub shark; Requin; Requiem; Lamia; Common gray shark.*
Tropical parts of the Atlantic; common northward to the Florida Keys and in the Mediterranean; rarely straying northward to New York in the Gulf Stream.
Squalus commersonii Blainville, Bull. Soc. Philom., 1816, 121, Mediterranean.
Carcharias lamia Risso, Europ. Mérid., III, 1826, 19, Nice; not of Rafinesque.
Squalus longimanus Poey, Memorias, II, 1861, 338, Cuba.
51. *Carcharias lamiella* Jordan and Gilbert. *Bay shark.*
San Diego Bay and southward along the Mexican coast.
Carcharias lamiella Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 110, San Diego; regarded by Garman as identical with *C. commersonii* of the Atlantic.
52. *Carcharias platyrhynchus* (Gilbert).
Magdalena Bay, Lower California, to Galapagos Islands and the Revillagigedo Islands.
Eulamia platyrhynchus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 543, Clarion Island; Magdalena Bay; regarded by Garman as identical with *C. commersonii*.
53. *Carcharias platyodon* (Poey). *Cub shark.*
Cuba to Texas; abundant in the Gulf of Mexico.
Squalus platyodon Poey, Memorias, II, 1861, 336, Habana.
Squalus obtusus Poey, loc. cit., 337, Habana.

54. **Carcharias milberti** Valenciennes. *Small blue shark; White shark.*
Cape Cod to Florida; not rare; recorded from the Mediterranean.
Carcharias (Prionodon) milberti Valenciennes, in Müller and Henle, Plagiostomen, 1838, 38, New York.
Carcharias cæruleus DeKay, N. Y. Fauna: Fishes, 1842, 49, New York.
Lamna caudata DeKay, loc. cit., 354, Brenton Reef, R. I.
55. **Carcharias obscurus** (LeSueur). *Dusky shark.*
North and Middle Atlantic; frequently on our coast.
Squalus obscurus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 223, New York.
Carcharias falcipinnis Lowe, Proc. Zool. Soc. Lond., 1839, 90, Madeira.
Prionodon obvelatus Valenciennes, Poiss. Îles Canaries, 1839, 103, Canaries.
56. **Carcharias azureus** Gilbert and Starks.
Carcharias azureus Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 11, Pl. II, fig. 5, Panama.
57. **Carcharias nicaraguensis** (Gill and Bransford). *Nigrone; Fresh-water shark.*
Lake Nicaragua (landlocked); also in the Bay of Panama.
Eulamia nicaraguensis Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 190, Lake Nicaragua.
58. **Carcharias henlei** Valenciennes.
Coast of Brazil, northward to Guiana.
Carcharias henlei Valenciennes, in Müller and Henle, Plagiostomen, 1838, 46, Cayenne.
Carcharias porosus Ranzani, De Novis Speciebus Piscium, Dissert. Prima., in Novi Com. Acad. Bonon., IV, 1840, 70, Brazil.
59. **Carcharias cerdale** (Gilbert).
Abundant at Panama.
Carcharhinus cerdale Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., III, 1898, 2746, Panama; united by Garman with *C. menisorrhæ* from the East Indies.
60. **Carcharias falciformis** Bibron. *Cazon de playa (wharf) shark.*
Cuba and neighboring waters.
Carcharias falciformis Bibron, in Müller and Henle, Plagiostomen, 1838, 47, Cuba.
Squalus tiburo Poey, Memorias, II, 1861, 331, Habana.
61. **Carcharias remotus** Valenciennes.
West Indies and Brazil.
Carcharias remotus Valenciennes, in Duméril, Hist. Nat. Poiss., I, 1865, 374.
Platypodon perezi Poey, Anal. Soc. Española Hist. Nat., V, 194, pl. 9, figs. 2, 3, Cuba.
62. **Carcharias acronotus** (Poey).
Cuba.
Squalus acronotus Poey, Memorias, II, 1861, 335, Cuba.
63. **Carcharias velox** (Gilbert).
Panama.
Carcharhinus velox Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2747, Panama.
64. **Carcharias oxyrhynchus** Müller and Henle.
Surinam.
Carcharias oxyrhynchus Müller and Henle, Plagiostomen, 1838, 41, Surinam.
65. **Carcharias limbatus** Müller and Henle. *Carconetta.*
Tropical seas north to Florida; a stray example taken at Woods Hole, Mass.
Carcharias (Prionodon) limbatus Müller and Henle, Plagiostomen, 1838, 49, Martinique.
Isogomphodon maculipinnis Poey, Repertorio, I, 1866, 191, Cuba.
Carcharias (Prionodon) mullerii Steindachner, Sitzungs. Kais. Akad. Wiss. Wien, LVI, 1867, 356, West Indies.
Carcharias microps Lowe, Proc. Zool. Soc. Lond., 1840, 38, Madeira.
Prionodon cucurii Castelnau, Anim. Amer. Sud. Poiss., 1855, 99, Bahia.

66. *Carcharias æthalarus* Jordan and Gilbert.
Mazatlan to Panama.
Carcharias æthalarus Jordan and Gilbert, Proc., U. S. Nat. Mus., V, 1882, 104, Mazatlan; regarded by Garman as inseparable from *C. limbatus*.
67. *Carcharias natator* (Meek and Hildebrand).
Gulf of Panama.
Carcharhinus natator Meek and Hildebrand, Marine Fishes of Panama, Field Mus. Nat. Hist., Zool., XV, Pt. I, Dec. 20, 1923, 40, pl. 1, fig. 1, Panama City fish market.
68. *Carcharias fronto* Jordan and Gilbert. *Tiburón*.
Pacific coast of Mexico.
Carcharias fronto Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 102, Mazatlan. Regarded by Garman as inseparable from *C. milberti*.
- Genus 33. *HYPOPRION* Müller and Henle.⁸
Hypoprion Müller and Henle, Plagiostomen, 1838, 34 (*Carcharias macloiti* Müller and Henle).
Hypoprionodon Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 401 (*Carcharias hemiodon* Valenciennes).
69. *Hypoprion brevirostris* Poey.
West Indies, north to Charleston and Pensacola.
Hypoprion brevirostris Poey, Repertorio, II, 1868, 451, Tab. 4, Cuba.
70. *Hypoprion signatus* Poey.
Cuba.
Hypoprion signatus Poey, Synop., 1868, 452, Cuba.
Hypoprion longirostris Poey, Enumeratio, 1876, 199, Cuba.
- Genus 34. *PRIONACE*⁹ Cantor.
Galeus Valmont de Bomare, Dict. Raisonné, I, 1768, 371, "Cagnot bleu, *Galeus glaucus* Valmont"; Latin vernacular.
Prionodon Müller and Henle, Plagiostomen, 1838, 36 (*Squalus glaucus* L.); name preoccupied.
Prionace Cantor, Malayan Fishes, 1850, 399, substitute for *Prionodon* (*Squalus glaucus* Linnæus).
Cynocephalus Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 401 (*Squalus glaucus* L.); after Klein, whose names are not binomial.
71. *Prionace glauca* (Linnæus). *Great blue shark*.
A large shark of the warm seas, occasionally taken on our coasts, both Atlantic and Pacific.
Squalus glaucus Linnæus, Syst. Nat., ed. X, 1758, 235, Seas of Europe.
Squalus cæruleus Blainville, Faune Française, 1828, 91, Mediterranean.
Squalus hirundinaceus Valenciennes, in Müller and Henle, Plagiostomen, 1838, 37, Brazil.

Family 12. SPHYRNIDÆ. Hammer-headed sharks

Genus 35. *RENICEPS* Gill.

Reniceps Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 403 (*Squalus tiburo* Linnæus).

72. *Reniceps tiburo* (Linnæus). *Shovelhead shark*; *Bonnethead shark*.
Atlantic Ocean, abundant from Long Island southward; Pacific Ocean ranging from Mazatlan and Bay of Panama to China.
Squalus tiburo Linnæus, Syst. Nat., ed. X, 1758, 234, America.

Genus 36. *PLATYSQUALUS* Swainson.

Platysqualus Swainson, Class. Anim., II, 1839, 318 (*Zygæna tudes* Cuvier, in Valenciennes); misnamed *Zygæna tiburo*.

⁸ Müller and Henle's Systematische Beschreibung der Plagiostomen was published from 1838 to 1841. Garman, probably correctly, gives this and other genera of sharks the date of 1841. Some of them appeared earlier in periodicals.

⁹ The reasons for not accepting the names of Valmont de Bomare in scientific nomenclature are given by Jordan and Evermann, Genera of Fishes, I, p. 27. These names (*Galeus*, *Vulpecula*, *Catulus*, and *Mustelus*) are binomial only by accident, and not accepted by the author himself as generic in his list of genera (1791). These are, however, accepted by Garman (Plagiostomia, 1913).

73. *Platysqualus tudes* (Cuvier).

Gulf of California to Bay of Panama; West Indies; Mediterranean Sea and Indian Ocean.

Zygæna tudes Cuvier, in Valenciennes, Mém. Mus. Hist. Nat., IX, 1822, 225, Nice; after *Pantouflier* of Risso.

Genus 37. SPHYRNA Rafinesque.

Sphyrna Rafinesque, Indice, 1810, 60 (*Squalus zygæna* Linnæus).

Cestrorhinus Blainville, Jour. Phys., 1816, 264 (*Squalus zygæna* Linnæus).

Zygæna Cuvier, Règne Anim., ed. I, 1817, 127 (*Squalus zygæna* Linnæus); name preoccupied.

Sphyrichthys Thienemann, Lehrbuch der Zoologie, III, 1828, 408 (*Squalus zygæna* Linnæus).

Eusphyra Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 412 (*Squalus zygæna* Linnæus).

Cestracion Garman, Plagiostomen, 1813, 133 (*Squalus zygæna* L.); after Klein; not binomial; not of Cuvier.

74. *Sphyrna zygæna* (Linnæus). Hammerhead shark; Hammerhead; Shovel-nose shark.

Cape Cod and Point Conception southward; Bay of Panama and Mazatlan in Pacific; and across to Hawaii and Japan; abundant.

Squalus zygæna Linnæus, Syst. Nat., ed. X, 1758, 234, Europe; America. *Zygæna malleus* Valenciennes, Mém. Mus. Hist. Nat., IX, 1822, 223, pl. 11, fig. 1.

Zygæna lewini Lord, in Griffith, Animal Kingdom, X, 1834, 640, pl. 50, New Holland.

Zygæna subarcuata Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 71, Cape Cod.

Family 13. RHINEODONTIDÆ. Whale sharks**Genus 38. RHINEODON Smith.**

Rhincodon Smith, Zool. Jour. Lond., No. XVI, 1829, 443 (*R. typicus* Smith); misprint for *Rhincodon*.

Micristodus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 177 (*M. punctatus* Gill).

Rhinodon and *Rhincodon* of authors.

75. *Rhineodon typicus* Smith. Whale shark; Mhor; Chagrin; Tiburon ballenas; Tint reva; East Indian basking shark.

Coast of Florida; Gulf of California; Cape of Good Hope; Japan to China; India; rare but widely diffused.

Rhincodon typicus Smith, Zool. Jour. Lond., No. XVI, 1829, 443, 444, Table Bay, Cape of Good Hope.

Micristodus punctatus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 177, Gulf of California.

Family 14. ALOPIIDÆ. Thresher sharks**Genus 39. ALOPIAS Rafinesque.**

Vulpecula Valmont de Bomare, Dict. Raisonné, III, 1768, 740 (*V. marina* Valmont); Latin vernacular not intended as a generic name.

Alopias Rafinesque, Caratteri, 1810, 12 (*Alopias macrourus* Rafinesque = *Alopecias vulpes* Günther).

Alopecias Müller and Henle, Plagiostomen, 1838, 74, amended orthography.

76. *Alopias vulpinus* (Bonnaterre). Thresher; Fox shark; Singletail; Longtail shark; Fish shark; Sea fox; Sea ape; Pez zorro; Pesca pavone.

Mediterranean, Atlantic, and Pacific.

Vulpecula marina Valmont, Dict. Raisonné, III, 740; not eligible.

Squalus vulpinus Bonnaterre, Tableau Encycl. Ichth., 1788, 9, Mediterranean; after Pennant.

Squalus vulpes Gmelin, Syst. Nat., I, 1789, 1496, Mediterranean; after Pennant.

Alopias macrourus Rafinesque, Caratteri, 1810, 12, Sicily.

Galeus vulpecula Rafinesque, Caratteri, 1810, 15; passing notice.

Family 15. ODONTASPIDÆ. Sand sharks

Genus 40. ODONTASPIS Agassiz.

Odontaspis Agassiz, Poiss. Fossiles, III, 1836, 87 (*Squalus ferox* Risso).

77. *Odontaspis littoralis* (Mitchill). Sand shark; Shorcnose shark; Horned dogfish; Picked dogfish; Dogfish; Bone-dog; Skittle-dog; Hoe.

Atlantic coast between Cape Cod and Cape Hatteras; regarded by Garman as not separable from *Carcharias taurus* Rafinesque of the Mediterranean.

Squalus americanus Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 483, New York; not of Shaw.

Squalus littoralis and *Squalus macrodus* Mitchill, Amer. Month. Mag., II, 1818, 328, New York.

Carcharias griseus Ayres, Bost. Jour. Nat. Hist., IV, 1843, 288, Long Island.

Family 16. LAMNIDÆ. Mackerel sharks; Man-eaters

Genus 41. LAMNA Cuvier. Porbeagles.

Lamna Cuvier, Règne Anim., ed. I, 1817, 126 (*Squalus cornubicus* Gmelin).

Lamia Risso, Europ. Mérid., III, 1826, 123 (*Squalus cornubicus* Gmelin); name preoccupied.

Selanonius Fleming, Brit. Anim., 1828, 169 (*Selanonius walkeri* Fleming = *Squalus cornubicus* Gmelin).

78. *Lamna nasus* (Bonnaterre). Porbeagle; Mackerel shark; Salmon shark.

North Atlantic and North Pacific; abundant in central and southeast Alaska.

Squalus nasus Bonnaterre, Tableau Encycl., Ichth., 1788, 10, shores of Cornwall.

Squalus cornubicus Gmelin, Syst. Nat., I, 1789, 1497, shores of Cornwall.

Squalus pennanti Walbaum, Artedi Pisc., 1792, 517, Cornwall; after Pennant.

Squalus monensis Shaw, Gen. Zool., V, 1804, 350, Anglesea.

Selanonius walkeri Fleming, Brit. Anim., 1828, 169, Lochfyne, Argyleshire.

Genus 42. ISURUS Rafinesque.

Isurus Rafinesque, Caratteri, 1810, 11 (*Isurus oxyrinchus* Rafinesque).

Oxyrhina Agassiz, Poiss. Fossiles, III, 1836, 276 (*Isurus spallanzani* Rafinesque = *Isurus oxyrinchus* Rafinesque).

Isuropsis Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 398, 409 (*I. dekayi* Gill).

79. *Isurus punctatus* (Storer). Mackerel shark.

Atlantic coast of United States; common.

Lamna punctata Storer, Rept. Fishes Mass., 1839, 185, pl. 3, fig. 2, Massachusetts.

Oxyrhina dekayi Gill, Cat. Fish. E. Coast N. Amer., Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 60, after Storer; name misprint for *dekayi*.

80. *Isurus tigris* (Atwood). Mackerel shark; Mackerel porbeagle; Dentada.

Cape Cod to West Indies; not generally common except in the Gulf of Mexico.

Lamna punctata DeKay, N. Y. Fauna: Fishes, 1842, 352, New York; not *Squalus punctatus* Mitchill.

Isuropsis dekayi Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 409; after DeKay; not *Oxyrhina dekayi* Gill, 1861.

Carcharias tigris Atwood, Proc. Bost. Soc. Nat. Hist., XII, 1869, 268, Provincetown, Mass.

81. *Isurus oxyrinchus* Rafinesque. Mackerel shark; Pesce tondo; Cane de mare.

Mediterranean Sea and neighboring parts of the Atlantic; occasional on the Atlantic coast of America.

Isurus oxyrinchus Rafinesque, Caratteri, 1810, 12, Palermo.

Isurus spallanzani Rafinesque, Indice, 1810, 60, Sicily; after Spallanzani.

Oxyrhina gomphodon Müller and Henle, Plagiostomen, 1838, 68, Atlantic Ocean.

Squalus rostratus Macri, Mem. Ac. Sci. Napoli, I, 1819, 55, Tab. 1, fig. 2, Naples.

Genus 43. **CARCHARODON** ¹⁰ Smith. *Man-eater sharks: Great white sharks.*
Carcharodon Andrew Smith, in Müller and Henle, Mag. Nat. Hist., II, second article, January, 1838, 37 (*Carcharodon capensis* Smith = *Squalus carcharias* Linnæus).

82. **Carcharodon carcharias** (Linnæus). *Man-eater shark; Great white shark.*
 Temperate and tropical parts of Atlantic and Pacific; occasionally on our coasts, north to New York and Monterey Bay. A dangerous shark.
Squalus carcharias Linnæus, Syst. Nat., ed. X, 1758, 235, Europe; after Artedi.
Carcharias lamia Rafinesque, Indice, 1810, 44, after Linnæus; not of Risso and later authors.
Carcharodon verus Agassiz, Poiss. Fossiles, III, 1838, 91.
Carcharodon rondeleti Müller and Henle, Plagiostomen, 1838, 70, Mediterranean Sea and Atlantic Ocean.
Carcharodon Smith, in Bonaparte, Mem. Soc. Sci. Neuchâtel. II, 1839, 9 (errata), New York and Monterey Bay.
Carcharias atwoodi Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 72, Provincetown.
Carcharodon capensis Smith, Ills. Zool. S. Africa, Pisces, 1849, pl. 4, Cape of Good Hope.

Family 17. **CETORHINIDÆ.** Basking sharks

Genus 44. **CETORHINUS** Blainville.

Cetorhinus Blainville, Bull. Soc. Philom., 1810, 169 (*Squalus gunneri* Blainville = *Squalus maximus* Gunner).
Selache Cuvier, Règne Anim., ed. I, 1817, 129 (*Squalus maximus* Gunner).
Polyprosopus Couch, Hist. Brit. Fishes, I, 1862, 67 (*Squalus rashleighanus* Couch = *Squalus maximus* Gunner).

83. **Cetorhinus maximus** (Gunner). *Basking shark; Pélérin; Elephant shark; Bone shark; Sailfish; Sunfish; Hoe-mother; Capidoli or oilfish.*
 Arctic seas, straying southward to Portugal, Virginia, and California.
Squalus maximus Gunner, Trondhjems Skrift., III, 1765, 33, coast of Norway.
Squalus gunneri Blainville, Bull. Sci. Philom., 1810, 256; after Gunner.
Squalus pelegrinus Blainville, loc. cit., 257, Europe.
Squalus homianus Blainville, loc. cit., 257, Europe.
Cetorhinus shavianus Blainville, loc. cit., 264, Europe.
Squalus isodus Saverino Macri, Mem. della R. Ac. Sci. Napoli, I, 1819, 55, pls. 1 and 2, Naples.
Squalus elephas LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 343, New Jersey.
Squalus rashleighanus Couch, Trans. Linn. Soc., XIV, 1825, 91, Cornwall.
Squalus cetaceus Gronow, Cat. Fishes, 1854, 6, Norway.
Polyprosopus macer Couch, Hist. Brit. Fishes, I, 1877, 68, England.

¹⁰ As to the authorship of the name *Carcharodon*, we have this information from the late Allan R. McCulloch, of the Australian Museum:

"The name *Carcharodon* is not used by Smith. The earliest reference to it is that of Müller and Henle, as quoted above. These authors saw Smith's specimens (p. 33) and perhaps heard his paper read at the Zoological Society in September, 1837. They, therefore, quoted the name as of Smith. But Smith's paper was not published until February 13, 1838, he having read Müller and Henle's paper about a month previously, in which *Carcharodon* appeared, and he evidently withdrew it with names he refers to in his paper." (In lit. June 28, 1920.)

Order G. TECTOSPONDYLI.¹¹ Tectospondylous sharks

Suborder SQUALOIDEI. (Sharks without anal fin)

Family 18. SQUALIDÆ. Dogfishes

Genus 45. SQUALUS Linnæus.

Squalus (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 233 (includes all sharks; *Squalus acanthias* Linnæus made type by subsequent writers, following Rafinesque, 1810).

Acanthorhinus Blainville, Jour. Phys., 1816, 263 (*Squalus acanthias* Linnæus).

Acanthias Risso, Europ. Mérid., III, 1826, 131 (*Squalus acanthias* Linnæus).

84. *Squalus acanthias* Linnæus. *Spiny dogfish*; *Cod shark*; *Codfish shark*; *Thornback shark*; *Picked dogfish*; *Bone-dog*; *Dogfish*; *Skittle-dog*.

North Atlantic, on both coasts and about Cuba; abundant along shores of Northern and Middle States.

Squalus acanthias Linnæus, Syst. Nat., ed. X, 1758, 233, coast of Europe.

Acanthias vulgaris Risso, Europ. Mérid., III, 1826, 131, Nice.

Acanthias americanus Storer, Synop. N. Amer. Fishes, in Mem. Am. Acad., II, 1846, 506, Massachusetts.

85. *Squalus suckleyi* (Girard). *California dogfish*; *Dogfish*.

Pacific coast of America, from Santa Barbara to the Aleutian Islands; abundant in southeast and middle Alaska, through to Kamchatka.

Spinax (*Acanthias*) *suckleyi* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, Fort Steilacoom, Wash.

Genus 46. CENTROSCYMNUS Bocage and Capello.

Centroscymnus Bocage and Capello, Proc. Zool. Soc. Lond., 1864, 263 (*C. calolepis* Bocage and Capello).

86. *Centroscymnus calolepis* Bocage and Capello.

Coast of Portugal and neighboring parts of the Atlantic; Gloucester, Mass., and Nova Scotia Banks.

Centroscymnus calolepis Bocage and Capello, Proc. Zool. Soc. Lond., 1864, 263, Portugal.

Genus 47. CENTROSCYLLIUM Müller and Henle.

Centroscyllium Müller and Henle, Plagiostomen, 1838, 191 (*Spinax fabricii* Reinhardt).

87. *Centroscyllium fabricii* (Reinhardt).

Greenland seas; Gloucester and the Nova Scotia Banks.

Spinax fabricii Reinhardt, Dansk. Vidensk. Selsk. Forhandl., III, 1828, XVI, Greenland.

Genus 48. ETMOPTERUS Rafinesque.

Etmopterus Rafinesque, Caratteri, 1810, 14 (*Etmopterus aculeatus* Rafinesque = *Squalus spinax* L.).

Acanthidium Lowe, Proc. Zool. Soc. Lond., 1839, 91 (*Acanthidium pusillum* Lowe, as restricted by Jordan and Evermann, 1896; restricted by Garman, 1912, to *A. calcea*, a species of *Deania* Jordan and Snyder).

88. *Etmopterus hillianus* (Poey).

West Indies; Cuba; St. Kitts.

Spinax hillianus Poey, Memorias, II, 1861, 340, Cuba.

Family 19. SOMNIOSIDÆ. Sleeper sharks

Genus 49. SOMNIOSUS LeSueur.

Somniosus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 222 (*Somniosus brevipinna* LeSueur = *Squalus microcephalus* Bloch and Schneider.)

Lamargus Müller and Henle, Plagiostomen, 1838, 93 (*Squalus borealis* Scoresby = *Squalus microcephalus* Bloch and Schneider).

Leiodon Wood, Proc. Bost. Soc. Nat. Hist., II, 1847, 174 (*Leiodon echinatum* Wood = *Squalus microcephalus* Bloch and Schneider).

Rhinocymnus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 264 (*Scymnus rostratus* Risso).

¹¹ We group together under this name those sharks that, like the rays, lack the anal fin and that have also simplified or degenerate vertebrae, in which the hard material is arranged in rings without radiation.

89. *Somniosus microcephalus* (Bloch and Schneider). *Sleeper shark*; *Nurse shark*.
 Arctic seas, south to Cape Cod, Oregon, San Francisco Bay, and France.
Squalus microcephalus Bloch and Schneider, Syst. Ichth., 1801, 135, northern seas.
Somniosus brevipinna LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 222, Massachusetts.
Squalus borealis Scoresby, Arct. Reg., I, 1820, 538, pl. 15, Arctic.
Squalus norvegicus Blainville, Faune Française, 1828, 61, Norway.
Squalus glacialis Faber, Natur der Fische Islands, 1829, 23, Iceland.

Family 20. ECHINORHINIDÆ. Bramble sharks

Genus 50. ECHINORHINUS Blainville.

Echinorhinus Blainville, Bull. Soc. Philom., 1816, 121 (*Squalus spinosus* Gmelin).

Goniodus Agassiz, Poiss. Fossiles, III, 1836, 183 (*Squalus spinosus* Gmelin).

90. *Echinorhinus brucus* (Bonnaterre). *Bramble shark*.
 Atlantic coasts of Europe, America, and Africa; scarce in the western Atlantic.
Squalus brucus Bonnaterre, Tableau Encycl., Ichth., II, 1788, 1500, "the ocean."
Squalus spinosus Gmelin, Syst. Nat., 1789, 1500, "the ocean."
Echinorhinus obesus Smith, Ills. Zool. So. Africa, Fishes, 1845, Pl. I, Cape of Good Hope.

Suborder SQUATINOIDEI

Family 21. SQUATINIDÆ. Angel sharks

Genus 51. SQUATINA Duméril.

Squatina Valmont de Bomare, Dict. Raisonné, I, 1768, 117; not eligible.

Rhina Klein, Neuer Schauplatz, II, 1776, 587; non-binominal.

Squatina Duméril, Zool. Analyt., 1806, 102 (*Squatina angelus* Duméril = *Squalus squatina* Linnæus).

Rhina Rafinesque, Caratteri, 1810, 14 (*Squalus squatina* L.)

91. *Squatina duméril*¹² LeSueur. *Angelfish*; *Monkfish*.
 Atlantic coast of United States; Newport, R. I.
Squatina duméril LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 225, pl. 10, probably Florida.
92. *Squatina squatina* (Linnæus). *Monkfish*; *Angelfish*; *Squato*; *Shark ray*; *Monkeyfish*; *Kingston*; *Fiddlesfish*; *Little bullhead shark*.
 Atlantic on both coasts, north to southern England and Cape Cod.
Squalus squatina Linnæus, Syst. Nat., ed. X, 1758, 233, coasts of Europe.
Squatina lævis Cuvier, Règne Anim., ed. I, 1817, 131; after Linnæus.
Squatina vulgaris Risso, Ichth. Nice, 1810, 45, Nice.
Squatina fimbriata Müller and Henle, Plagiostomen, 1838, 101, Mediterranean Sea.
Squatina oculata Bonaparte, Faun. Ital., Pesc., XXVIII, 1840, Fasci. 147, pl. 143, Italy.
Squatina lewis Couch, Trans. Linn. Soc. Lond., XIV., 1825, 90, Cornwall.
93. *Squatina californica* Ayres. *California angel shark*.
 Pacific coast of America, from southeastern Alaska southward; not rare on coast of California.
Squatina californica Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 29, San Francisco.

¹² As this species has not been distinguished generally from its near relative, *Squatina squatina* L., it is possible that all western Atlantic records belong to it.

Order H. BATOIDEI. Rays

Suborder SARCURA. Thick-tailed rays

Family 22. PRISTIDÆ. Sawfishes

Genus 52. PRISTIS Linck.

Pristis Klein, Neuer Schauplatz, VII, 1779, 403; non-binominal.

Pristis Linck, Mag. Neueste Physik und Naturgeschichte, 1790, 31 (*Squalus pristis* L.).

Pristis Latham, Trans. Linn. Soc. Lond., II, 1794, 276 (*Squalus pristis* L.).

94. *Pristis pectinatus* Latham. Common sawfish; *Pez sierra*.

Tropical Atlantic, north to West Indies and Florida; occasionally at Cape May and Grassy Sound.

Pristis pectinatus Latham, Trans. Linn. Soc. Lond., II, 1794, 278, "in the ocean."

Pristis granulosa Bloch and Schneider, Syst. Ichth., 1801, 352, Habana; after Parra.

Pristis mississippiensis Rafinesque, Ichth. Ohiensis, 1820, 86, lower Mississippi.

Pristis megulodon Duméril, Elasmobranchs, 1870, 476, pl. 9, Cayenne.

Pristis acutirostris Duméril, loc. cit., 479, Martinique.

Pristis occa Duméril, loc. cit., 479, locality unknown.

95. *Pristis zephyreus*¹³ Jordan and Starks. *Pez de espada*.

Tropical seas entering rivers, north to Mazatlan on the Pacific coast.

Pristis zephyreus Jordan and Starks, Fishes of Sinaloa, in Proc. Calif. Acad. Sci., V, 1895, 383, Mazatlan, Mexico; regarded by Garman as inseparable from *Pristis microdon* Latham.

Family 23. RHINOBATIDÆ. Guitarfishes

Genus 53. RHINOBATOS Linck. Guitarfishes.

Rhinobatus Klein, Neuer Schauplatz, II, 1776, 593 (*Rhinobatos seu = Squatina raja*; non-binominal).

Rhinobatos Linck, Magazin Neuestes, 1790, 32; type not specified.

Rhinobatus Bloch and Schneider, Syst. Ichth., 1801, 353 (*Rhinobatus rhinobatus*).

Syrrhina Müller and Henle, Plagiostomen, 1838, 113 (*Rhinobatus columna = Rhinobatos rhinobatus*).

Glaucostegus Bonaparte, Catalogo Metodico, 1846, 14 (*Rhinobatus rhinobatus*).

96. *Rhinobatos horkeli* (Müller and Henle).

Brazil north to Windward Islands; St. Eustatius.

Rhinobatus horkeli Müller and Henle, Plagiostomen, 1838, 122, pl. 41.

97. *Rhinobatos lentiginosus* (Garman). *Guilarro*.

Atlantic from Charleston, S. C., to Yucatan.

Rhinobatus lentiginosus Garman, Bull. Mus. Comp. Zool., VI, 1880, 168, coast of Florida.

98. *Rhinobatos percellens* (Walbaum). *Fiddlerfish*; *Puraque*.

West Indies to Jamaica and southern Brazil.

Raja percellens Walbaum, Artedi Pisc., 1792, 525, Brazil; after *Puraque* Marcgrave.

Rhinobatus electricus Bloch and Schneider, Syst. Ichth., 1801, 356, Brazil.

Rhinobatus undulatus Ölfers, Torpedo, 1831, 22, Brazil.

Rhinobatus glaucostictus Ölfers, loc. cit., 1831, 22, Brazil.

Rhinobatus marcgravi Henle, Ueber Narcine, 1834, 34, Brazil.

99. *Rhinobatos stellio* (Jordan and Rutter).

West Indies.

Rhinobatus stellio Jordan and Rutter, Proc., Acad. Nat. Sci. Phila., XLIX, 1897, 91, Kingston, Jamaica.

¹³ The African species, *P. perotteti* Valenciennes, probably does not occur in America.

100. **Rhinobatos spinosus** (Günther).
Mexico.
Rhinobatus spinosus Günther, Cat., VIII, 1870, 518, Mexico.
101. **Rhinobatos productus** (Ayres). *Guitarfish*.
San Francisco to San Diego.
Rhinobatus producta Ayres, in Girard, Proc., Acad. Nat. Sci. Phila., VII, 1854, 196, Presidio of Monterey, Calif.
102. **Rhinobatos glaucostigma** (Jordan and Gilbert). *Guitarro*.
Gulf of California and southward.
Rhinobatus glaucostigma Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, 210, Mazatlan.
103. **Rhinobatos leucorhynchus** (Günther).
Panama and vicinity.
Rhinobatus leucorhynchus Günther, Proc. Zool. Soc. Lond., 1866, 604, Panama.
- Genus 54. **ZAPTERYX** Jordan and Gilbert.
Zapteryx Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 53 (*Platyrrhina exasperata* Jordan and Gilbert).
104. **Zapteryx exasperatus** (Jordan and Gilbert).
San Diego Bay; abundant.
Platyrrhina exasperata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 32, San Diego.
Trigonorrhina alveata Garman, Bull. Mus. Comp. Zool., VI, 1880, 169, San Diego.
105. **Zapteryx xyster** Jordan and Evermann.
Panama.
Zapteryx xyster Jordan and Evermann, Fishes North and Mid. Amer., 1896, 65, Panama.

Family 24. PLATYRRHINIDÆ

- Genus 55. **PLATYRRHINOIDIS** Garman.
Platyrrhinoidis Garman, Proc. U. S. Nat. Mus., III, 1880, 522 (*Platyrrhina triseriata* Jordan and Gilbert).
106. **Platyrrhinoidis triseriatus** (Jordan and Gilbert).
Coast of California, from Point Conception southward.
Platyrrhina triseriata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 36, Santa Barbara, Calif.

Family 25. RAJIDÆ. Skates and rays

- Genus 56. **RAJA** Linnæus.
Raja (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 231 (*Raja batis* Linnæus).
Dipturus Rafinesque, Caratteri, 1810, 16 (*Raja batis* L.).
Platopterus Rafinesque, Anal. Nat. 1815, 93 (*Raja batis* L.).
Dasybatus Blainville, Jour. Phys. 1816, 260 (*communis*).
Propterygia Otto, Nova Acta Acad. Cæs. Leop. Carol. Nat. Curios., 1824, 777 (*hyposticta*; monstrous example with fins not adnate to head).
Læviraja Bonaparte, Faun. Ital., XXV, 1839, 130 (*oxyrhynchus*).
Hieroptera Fleming, Edinburgh New Philos. Jour., XXVI, 1841, 236 (*H. abredonensis* Flem.=*R. clavata* L.).
Batis Bonaparte, Cat. Metod., 1846, 12 (*radula*; no description).
Raia of various authors; merely change of spelling.
Amblyraja Malm, Goteborg og Bohuslan's Fauna, 1877, 607 (*Raia circularis* Malm=*Raia radiata* Donovan).
Lencoraja Malm, loc. cit., 609 (*Raja fullonica* L.).
Alpharaja Leigh-Sharpe,¹⁴ Jour. Morph., XXXIX, 1924, 568 (*Raja circularis* Couch).

¹⁴ Mr. Leigh-Sharpe (Jour. Morphology, XXXIX, December, 1924) divides the genus *Raja* into nine "pseudogenera" on the morphology of the genital organs. To settle the question of the standing of pseudogenera, Jordan (in Copeia, 1925) accepts all as subgenera. Most of those not named above (*Epsilonirata*, *Zetaria*, *Etaria*, *Thetaria*, and *Iotaria*), outside of our limits, may prove valid genera.

- Betaraia* Leigh-Sharpe, loc. cit., 568 (*Raja clavata* Linnæus, a synonym of *Heiroptera* Fleming).
- Gammaraia* Leigh-Sharpe, loc. cit., 568 (*Raja batis* Linnæus, a synonym of *Raja* Linnæus).
- Deltaraia* Leigh-Sharpe, loc. cit., 568 (*Raja radiata* Linnæus, a synonym of *Amblyraja* Malm).
107. **Raja lævis** Mitchill. *Barndoor skate; Winter skate; Peck-nosed skate.*
Massachusetts to Florida, common northward.
Raja lævis Mitchill, Amer. Month. Mag., II, 1817, 327, New York; name perhaps preoccupied by eligible authors (Gronow, 1763; Valmont, 1765; Duhamel, 1782).
Raja stabuliformis Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 341, Pl. XXII, fig. 2, Pl. XLIV, figs. 4-6, New England coast (substitute for *lævis*, regarded as preoccupied, a matter to be questioned).
108. **Raja radiata** Donovan.
Northern Iceland, southward on both coasts.
Raja radiata Donovan, Hist. Brit. Fish., V, 1820, pl. 114, Great Britain.
109. **Raja scabrata** Garman.
Raja scabrata Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 340, pl. 21, pl. 44, figs. 1-3, Massachusetts Bay. Long confused with *Raja radiata*.
110. **Raja granulata** Gill.
Banks of Newfoundland.
Raja granulata Gill, in Goode and Bean, Bull. Essex Inst., XI, 1879, 28, La Have Bank.
111. **Raja fyllæ** Lütken.
Davis Straits, Greenland.
Raja fyllæ Lütken, Vid. Medd. Naturh. Foren. Kjøbenhavn, 1887, 1, pl. 1, Davis Straits.
112. **Raja eglanteria** Bosc. *Skate; Brier ray; Possum ray; Sea possum; Bob-tailed skate; Clear-nosed skate; Summer skate.*
Cape Cod, southward to Florida; rather common.
Raja eglanteria Bosc, in Lacépède, Hist. Nat. Poiss., II, 1800, 104, Charleston; S. C.
Raja desmarestia LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 100, Florida.
Raja chantenay LeSueur, loc. cit., 106, America.
Raja americana DeKay, N. Y. Fauna: Fishes, 1842, 368, pl. 66, fig. 215, Staten Island.
113. **Raja erinacea** Mitchill. *Hedgehog ray; Common skate; Little skate; Tobacco-box; Prickly skate; Summer skate.*
Nova Scotia to the Carolinas; very abundant from Virginia to Maine.
Raja erinacea Mitchill, Amer. Jour. Sci. Arts, IX, 1825, 290, pl. 6, New York.
114. **Raja diaphanes** Mitchill. *Clear ray.*
East Coast of United States.
Raja ocellata Mitchill, Trans. Lit. Phil. Soc. N. Y., 1, 1803, 877, New York; not of Russell.
Raja diaphanes Mitchill, loc. cit., 478, New York.
115. **Raja senta** Garman.
Banks of Newfoundland to Cape Cod; in deep water.
Raja senta Garman, Proc. U. S. Nat. Mus., VIII, 1885, 43, Cape Cod Bay; La Have Bank.
116. **Raja microtrachys** Osburn and Nichols.
Off west coast of Lower California.
Raja microtrachys Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1917, 142, fig. 1, off Guadalupe Island in deep water.
117. **Raja ackleyi** Garman.
Yucatan Banks.
Raja ackleyi Garman, Bull. Mus. Comp. Zool., VIII, 1881, 234, Yucatan Banks.

118. *Raja ornata* Garman.
Coast of South Carolina and Florida.
Raja ornata Garman, Bull. Mus. Comp. Zool., VIII, 1881, 235, off South Carolina.
119. *Raja plutonia* Garman.
Deep water off South Carolina.
Raja plutonia Garman, Bull. Mus. Comp. Zool., VIII, 1881, 236, off South Carolina.
120. *Raja rhina* Jordan and Gilbert.
Monterey to Alaska; not rare.
Raja rhina Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 251, Monterey; San Francisco.
121. *Raja parmfifera* Bean.
Common on coast of Alaska; Bristol Bay.
Raja parmfifera Bean, Proc. U. S. Nat. Mus., IV, 1881, 157, Unalaska.
122. *Raja aleutica* Gilbert.
Unalaska, Aleutian Islands.
Raja aleutica Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1895), 397, pl. 21, Sannak Pass, Aleutian Islands, in 81 fathoms.
123. *Raja rosispinis* Gill and Townsend.
Bering Sea.
Raja rosispinis Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 231, Bering Sea.
Raja obtusa Gill and Townsend, loc. cit., 231, Bering Sea.
124. *Raja interrupta* Gill and Townsend.
Raja interrupta Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232, Bering Sea.
125. *Raja binoculata* Girard. *Big skate of California.*
Pacific coast; abundant from Monterey to Sitka.
Raja binoculata Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 196, San Francisco.
Raja cooperi Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 372, Shoalwater Bay, Wash.
126. *Raja stellulata* Jordan and Gilbert.
Coast of California and northward to Unalaska.
Raja stellulata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 133, Monterey Bay.
127. *Raja inornata* Jordan and Gilbert. *Common skate (California.)*
Coast of California; very abundant from San Diego to Cape Mendocino.
Raja inornata Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 457, San Francisco.
Raja jordani Garman, loc. cit., VIII, 1885, 43, San Francisco.
Raja inornata inermis Jordan and Gilbert, loc. cit., IV, 1881, 74, Santa Barbara.
128. *Raja montereyensis* Gilbert.
Monterey Bay.
Raja montereyensis Gilbert, Proc., U. S. Nat. Mus., XLVIII, 1915, 307, Monterey Bay off Santa Cruz, Calif., in 26 to 28 fathoms.
129. *Raja equatorialis* Jordan and Bollman.
West coast of Colombia, between Panama and Galapagos Islands.
Raja equatorialis Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 150, off Colombia.
130. *Raja trachura* Gilbert.
Santa Barbara Islands; south of Shumagin Islands, Central Alaska.
Raja trachura Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 539, off Santa Barbara, at Albatross station 2923 in 822 fathoms.
131. *Raja abyssicola* Gilbert.
Queen Charlotte Island, British Columbia, in deep water.
Raja abyssicola Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1895), 396, pl. 20, off Queen Charlotte Island, at Albatross station 3342 in 1,588 fathoms.

Genus 57. DACTYLOBATUS Bean and Weed.

Dactylobatus Bean and Weed, Proc. U. S. Nat. Mus., XXVI, 1909, 459
(*D. armatus* Bean and Weed).

132. Dactylobatus armatus Bean and Weed.

Deep water off South Carolina.

Dactylobatus armatus Bean and Weed, Proc. U. S. Nat. Mus., XXXVI,
1911, 459, off Charleston in 270 fathoms.

Suborder NARCACIONTES**Family 26. TORPEDINIDÆ. Electric rays****Genus 58. TETRANARCE**¹⁵ Gill. *Great torpedo*.

Tetranarce Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 387 (*Torpedo*
occidentalis Storer); misprinted *Tetronarce*.

Gymnotorpedo Fritsch, Arch. Anal. Phys., 1886, 365 (*Torpedo occidentalis*
Storer).

133. Tetranarce occidentalis (Storer). *Electricfish; Crampfish; Torpedo; Numbfish.*

Atlantic coast of United States, Cape Cod to Cuba; not very common.
Torpedo occidentalis Storer, Amer. Jour. Sci. Arts, XLV, 1843, 165,
pl. 3, Massachusetts. Garman regards this species as inseparable
from *Torpedo nobiliana* Bonaparte of the Mediterranean.

134. Tetranarce californica (Ayres). *California torpedo; Crampfish.*

Coast of California; not recorded from south of Monterey; recently
reported from Cape Flattery, Wash.
Torpedo californica Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 74,
San Francisco.

Genus 59. NARCINE Henle.

Narcine Henle, Ueber Narcine, 1834, 31 (*Torpedo brasiliensis* von
Ölfers).

Syraxia Jourdain, in Bonaparte, Fauna Italica, fasc. 160, 1841 (*Narcine*
indica Henle).

Cyclonarce Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 387 (*Raia*
timlei Schneider).

Gonionarce Gill, loc. cit., 387 (*Narcine indica* Henle).

135. Narcine brasiliensis (Ölfers). *Torpedofish; Small electric ray; Trembler.*

West Indies and Brazil, occasionally northward to Key West and the
coast of North Carolina.
Torpedo brasiliensis von Ölfers, Torpedo, 1831, 19, tab. 2, fig. 4, Brazil.
Torpedo bancrofti Griffith, Anim. King., X, 1834, 649, Pl. XXXIV,
Jamaica.

Narcine nigra Duméril, Revue Zool., 272, 1852, Brazil.

Torpedo pictus Gronow, Cat. Fishes, 13, 1854, Antilles.

Narcine brasiliensis corallina Garman, Bull. Mus. Comp. Zool., VIII,
1881, 234, Florida.

Narcine umbrosa Jordan, Proc. U. S. Nat. Mus., VII, 1884, 105, Key
West.

136. Narcine entemedor Jordan and Starks. *Entemedor.*

Pacific coast of tropical America; Mazatlan, La Paz, Panama.

Narcine entemedor Jordan and Starks, Fishes of Sinaloa, Proc. Calif.
Acad. Sci., V, 1895, 387, Mazatlan, Mexico.

Genus 60. DISCOPYGE Heckel.

Discopyge Heckel, in Tschudi, Fauna Peruana, 1846, 32 (*D. tschudii*
Tschudi).

137. Discopyge ommata Jordan and Gilbert.

Panama; rare.

Discopyge ommata Jordan and Gilbert, Proc. U. S. Nat. Mus., XII,
1889, 151, Panama.

¹⁵ In the Old World genus *Torpedo* Forskål, as then understood, the spiracles are provided with a fringe of filaments, at least in joints. In *Tetranarce* these are absent. The following is the synonymy of *Torpedo*:
Torpedo Forskål, Fauna Arabica, 1775, 16, in part (*Raja torpedo* L., confused with *Malapterurus dec-*
tricus, the electric catfish of the Nile).

Narcacion Klein, Neuer Schauplatz, IV, 1777, 726, nonbinomial (*Raja torpedo* L.).

Fimbriator torpedo Fritsch, loc. cit., 365 (*Torpedo marmorata* Risso = *Raja torpedo* L.).

Suborder MASTICURA. Whip-tailed rays

Family 27. DASYATIDÆ. Stingrays

Genus 61. PASTINACHUS Rüppell.

Pastinachus Rüppell, Atlas, Reise Nord Africa, 1828, 82 (*Raja sephen* Forskål); tail rounded above, with a keel below.

Hypolophus Müller and Henle, Plagiostomen, 1838, 170 (*Raja sephen* Forskål).

138. *Pastinachus centrourus* (Mitchill). *Stingaree*; *Stingray*; *Devilfish*; *Pigeon stingray*; *Clam-cracker*.

Coast of Maine to Cape Hatteras, abundant; the same or a related species in the Mediterranean.

Raja centroura Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 479, New York.

139. *Pastinachus schmardæ* (Werner).

West Indies.

Dasyatis schmardæ Werner, Zool. Jahrb., XXI, 1904, 298, Jamaica.

140. *Pastinachus torrei* (Garman). *Sabina*; *Lebisa*.

West Indies.

Dasyatis torrei Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 386, Tunas de Zaza, Cuba.

Genus 62. DASYATIS Rafinesque. *Stingrays*

Dasybatus Klein, Neuer Schauplatz, I, 1775, 191; not binomial.

Dasyatis Rafinesque, Caratteri, 1810, 16 (*Dasyatis ujo* Rafinesque = *Raja pastinaca* L.).

Uroxis Rafinesque, Indice, 1810, 61 (*U. ujo* Rafinesque).

Trigonobatus Blainville, Jour. Phys., 1816, 261 (*T. vulgaris* Blainville = *Pastinaca* L.).

Trygon Adanson, in Cuvier, Règne Anim., ed. I, 1817, 135 (*Raja pastinaca* L.).

Pastinaca Swainson, Class. Anim., 1839, 319 (*Pastinaca olivacea* Swainson).

Pastinaca DeKay, N. Y. Fauna: Fishes, 1842, 372 (*Raja pastinaca* L.).

Dasibatis Garman, corrected spelling.

141. *Dasyatis longus* (Garman).

Gulf of California to Panama: Galapagos.

Trygon longa Garman, Bull. Mus. Comp. Zool., VI, 1880, 170, Acapulco, Mexico.

142. *Dasyatis hastatus* (DeKay). *Whip stingray*; *Kit*; *Stingaree*.

West Indies to Brazil, north to Florida, North Carolina and Rhode Island.

Pastinaca hastata DeKay, N. Y. Fauna: Fishes, 1842, 373, pl. 65, fig. 214, Rhode Island.

143. *Dasyatis guttatus* (Schneider).

Surinam to Brazil; recorded from Granada.

Raja guttata Schneider, Syst. Ichth., 1801, 361, no locality given.

Trygon gymnura J. Müller, in Erdmann's Reise um die Erde, 1830, 25, taf. 13, Brazil.

Raja tuberculata Lacépède, Hist. Nat. Poiss., II, 1800, 106, pl. 4, fig. 1, Cayenne; not of Bonnaterre.

Genus 63. AMPHOTISTIUS Garman.

Amphotistius Garman, Plagiostomia, Mem. Mus. Comp. Zool., 1913, 375 (*Trygon sincensis* Steindachner); tail with a distinct fold above and below.

144. *Amphotistius say* (LeSueur). *Southern stingray*.

New Jersey to Brazil, common in Florida; occasionally northward to New York.

Raja say LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 42, New Jersey.

145. *Amphotistius sabinus* (LeSueur).
Streams and estuaries of Florida; abundant on both coasts.
Trygon sabina LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 109, Florida.
Trygon osteosticta Müller, in Erdmann's Reise um die Erde, 1830, 25, pl. 14, Brazil.
146. *Amphotistius dipterurus* (Jordan and Gilbert).
Bay of San Diego and southward; locally abundant.
Dasybatis dipterurus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 31, San Diego; identified by Garman with *Dasyatis brevis* Garman, from Peru.
- Genus 64. **PTEROPLATEA** Müller and Henle.
Pteroplatea Müller and Henle, Plagiostomen, 1838, 168 (*Raja altavela* L.)
147. *Pteroplatea altavela* (Linnæus)
Tropical Atlantic, occasionally northward to Mediterranean and in Gulf Stream; Beaufort, N. C.; Woods Hole, Mass.; taken at Penzance Point in Buzzards Bay (Nichols).
Raja altavela Linnæus, Syst. Nat., ed. X, 1758, 232, no locality.
Dasyatis attavilla Rafinesque, Indice, 1810, 49, Sicily.
Pteroplatea canariensis Valenciennes, Ichth. Canaries, 1843, 100, pl. 23, fig. 9, Canary Islands.
Pteroplatea valenciennei A. Duméril, Elasmobranches, 1865, 612, no locality.
Pteroplatea vaillanti Rochebrune, Bull. Sci. Philom., IV, 1880, 159, no locality.
148. *Pteroplatea micrura* (Schneider). *Butterfly ray*.
Rhode Island to Brazil.
Raja micrura Schneider, Syst. Ichth., 1801, 360, Surinam.
Raja macrura LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 41, Rhode Island.
149. *Pteroplatea marmorata* Cooper.
Coast of California, from Point Conception southward to Cedros Island; common.
Pteroplatea marmorata Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 112, fig. 25, San Diego.
150. *Pteroplatea crebripunctata* Peters. *Manta raya colorado*; *Manta raya*.
Gulf of California, southward along the west coast of Mexico; common.
Pteroplatea crebripunctata Peters, Monatsber. Akad. Wiss. Berlin, 1869, 703, Mazatlan.
Pteroplatea raya Jordan and Starks, in Jordan, Fishes of Sinaloa, Proc. Calif. Acad. Sci., Ser. 2, V, 1895, 390, Mazatlan, Mexico.
- Genus 65. **UROBATIS** Garman.
Urobatis Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 401 (*Leiobatus sloani* Blainville).
151. *Urobatis sloani* (Blainville). *Maid*.
West Indies, generally common; occasionally northward; once (perhaps doubtfully) recorded from New Jersey.
Leiobatus sloani Blainville, Bull. Sci. Philom., 1816, 121, Jamaica; after *Pastinaca marina* Sloan.
Raja jamaicensis Cuvier, Règne Anim., ed. I, 1817, 137, Jamaica.
Trygonobatus torpedinus Desmarest, Prem. Dec. Ichth., I, 1823, 6, Cuba.
152. *Urobatis vermiculatus* (Garman).
West Indies.
Urobatis sloani vermiculatus Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 802, Progreso, Yucatan.
153. *Urobatis halleri* (Cooper). *Round stingray*.
Coast of California, from Point Conception southward.
Urolophus halleri Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 95, San Diego.

154. *Urobatis umbrifer* (Jordan and Starks).
West coast of Mexico.
Urolophus umbrifer Jordan and Starks, in Jordan, Fishes Sinaloa, Proc. Calif. Acad. Sci., Ser. 2, V, 1895, 389, Mazatlan, Mexico; regarded by Garman as inseparable from *Urobatis halleri*.
155. *Urobatis nebulosus* (Garman).
Gulf of California to Panama.
Urolophus nebulosus Garman, Proc. U. S. Nat. Mus., VIII, 1885, 41, Colima, Mexico.
156. *Urobatis concentricus* Osburn and Nichols.
Gulf of California.
Urobatis concentricus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 144, fig. 2, Esteban Island, Gulf of California.
- Genus 66. *UROTRYGON* Gill.
Urotrygon Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 173 (*Urotrygon mundus* Gill).
157. *Urotrygon mundus* Gill.
West coast of Mexico.
Urotrygon mundus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 173, Panama.
Urolophus asterias Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 579, Mazatlan; Panama.
Urolophus rogersi Jordan and Starks, in Jordan, Fishes of Sinaloa, Proc. Calif. Acad. Sci., Ser. 2, V, 1895, 388, Mazatlan.
158. *Urotrygon goodei* (Jordan and Bollman).
Panama and vicinity.
Urolophus goodei Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 151, near Panama.
159. *Urotrygon aspidurus* (Jordan and Gilbert).
Panama.
Urolophus aspidurus Jordan and Gilbert, Bull. U. S. Fish Com., IV, 1881, 307, Panama.

Family 28. AËTOBATIDÆ. Eagle rays

Genus 67. *STOASODON* Cantor.

Aëtobatis Müller and Henle, Plagiostomen, 1841, 180 (*Raia narinari* Euphrasen); not *Aëtobatus* Blainville.

Stoasodon Cantor, Cat. Malayan Fishes, 1850, 434 (*Raia narinari* Euphrasen).

Goniobatis Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1859, 385 (*flagellum*).

160. *Stoasodon narinari* (Euphrasen). *Spotted stingray*; *Bishop ray*; *Obispo*; *Lady ray*.
Tropical seas; north on the Atlantic coast to Virginia; Pacific coast, Gulf of California to Panama.
Raia narinari Euphrasen, Vedensk. Akad. Nya Handl., XI, 1790, 217, Brazil.
Raia flagellum Bloch and Schneider, Syst. Ichth., 1801, 361, Coromandel.
Myliobatis eeltenkee Rüppell, Neu. Wirb., 1835, 70, Red Sea.
Goniobatis macroptera McClelland, Calcutta Jour. Nat. Hist., I, 1841, 60, Bengal.
Aëtobatus laticeps Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1865, 137, California.

Genus 68. *PTEROMYLÆUS* Garman.

Pteromyllæus Garman, Plagiostomia, Mem. Mus. Comp. Zool., XXXVI, 1913, 437 (*Myliobatis asperimus* Gilbert).

161. *Pteromyllæus asperimus* (Gilbert).
Panama.
Myliobatis asperimus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2754, Panama.

Genus 69. AETOBATUS ¹⁶ Blainville. *Eagle rays.*

Aetobatus Blainville, Jour. Phys., LXXXIII, 1816, 261 (*Raia aquila* as *Aetobatus vulgaris* Blainville).

Myliobatis Duméril in Cuvier, Règne Anim., ed. I, 1817, 137 (*Raia aquila*).

Holorhinus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 (*Rhinoptera vespertilio* Girard = *Myliobatus californicus* Gill).

162. Aetobatus fréminvillii (LeSueur). *Stingaree; Sharp-nosed ray; Long-tailed stingray.*

Cape Cod to Brazil.

Myliobatis freminvillii LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 111, Rhode Island.

Myliobatis bispinosus Storer, Proc. Bost. Soc. Nat. Hist., I, 1841, 53, Massachusetts.

Myliobatis acuta Ayres, loc. cit., I, 1842, 65, Brookhaven, Long Island, N. Y.

163. Aetobatus goodei (Garman).

Central America to Brazil; Rio Grande do Sul.

Myliobatis goodei Garman, Proc. U. S. Nat. Mus., VIII, 1885, 39, Central America.

164. Aetobatus californicus (Gill). *California stingray; Batfish.*

California from Cape Medocino southward.

Rhinoptera vespertilio Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 137, Tomales Bay; not *Myliobatis vespertilio* Bleeker.

Myliobatis californicus Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1865, 137; after Girard.

Family 29. RHINOPTERIDÆ**Genus 70. RHINOPTERA** Kuhl.

Rhinoptera Kuhl in Cuvier, Règne Anim. ed. II, II, 1829, 401 (*Myliobatis marginatus* Geoffroy).

Zygobatis Agassiz, Poiss. Fossiles, III, 1836, 79 (*Z. jussieuvi* Agassiz).

Myrlorhina Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1865, 136 (*Rhinoptera lalandi* Müller and Henle).

Micromesus Gill, loc. cit., 136 (*Rhinoptera adspersa* Müller and Henle).

165. Rhinoptera bonasus Mitchill. *Cowfish; Cow-nosed ray.*

Cape Cod to Florida.

Rhinoptera bonasus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 479, New York; description inadequate.

Raia quadriloba LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 44, New Jersey.

166. Rhinoptera steindachneri Evermann and Jenkins. *Gabilan.*

Gulf of California.

Rhinoptera steindachneri Evermann and Jenkins, Proc. U. S. Nat. Mus., XIV, 1891, 130, pl. 1, fig. 1, Guaymas, Sonora, Mexico.

167. Rhinoptera encenadæ Rosa Smith.

Todos Santos Bay, Lower California.

Rhinoptera encenadæ Rosa Smith, Proc. U. S. Nat. Mus., IX, 1886, 220, Enseñada de Todos Santos, Lower California. Jaw only.

Family 30. MOBULIDÆ. Sea devils**Genus 71. MOBULA** Rafinesque.

Mobula Rafinesque, Indice, 1810, 61 (*M. auriculata* = *Squalus edentulus* Brunnich).

Apterurus Rafinesque, Indice, 1810, 62 (*A. fabroni* Rafinesque).

Cephalopterus Risso, Ichth. Nice, 1810, 14 (*Raja giorna* Lacépède); not of Geoffroy St. Hilaire, 1809, a genus of birds.

Dicerobatus Blainville, Bull. Soc. Philom., 1816, 116 (*Raja mobular* Lacépède).

Pterocephala Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 321, (*Raja giorna* Lacépède).

* Müller and Henle correctly referred *Aetobatus* Blainville to the type of *Raja aquila*, spelling the name, however, as *Aetobatus*. They then created a new genus, *Aetobatis* for *Raia narinari*, an arrangement without warrant.

168. *Mobula hypostoma* (Bancroft).

Jamaica.

Cephalopterus hypostomus Bancroft, Proc. Comm. Zool. Soc., 1830, 134, Jamaica.**169. *Mobula olfersi* (Müller and Henle). *Small devilfish*.**

Cape Lookout, N. C., to Brazil.

Cephalopterus olfersi Müller and Henle, Abhandl. Akad. Wiss. Berlin, 1834, 311, Brazil; regarded by Garman as identical with *M. thypostoma*.**Genus 72. CERATOBATIS Boulenger.***Ceratobatis* Boulenger, Ann. Mag. Nat. Hist., XX, 1897, 227 (*C. robertsi* Boulenger).**170. *Ceratobatis robertsi* Boulenger.**

Jamaica.

Ceratobatis robertsi Boulenger, Ann. Mag. Nat. Hist., XX, 1897, 227, Jamaica.**Genus 73. MANTA Bancroft.***Manta* Bancroft, Zool. Jour., IV, 1828-29, 444 (*Cephalopterus manta* Bancroft=*Raia birostris* Walbaum, 1792).*Ceratoptera* Müller and Henle, Syst. Besch., Plagiostomen, 1838, 186 (*Cephaloptera vampyrus* Mitchill).*Brachioptilon* Newman, Zoologist, 1849, 74 (*B. hamiltoni*).*Diabolichthys* Holmes, Proc. Elliott Soc. Nat. Hist., I, 1856, 39 (*D. ellioti* Holmes).**171. *Manta birostris* (Walbaum). *Sea devil*; *Devilfish*; *Manta*; *Blanketfish*.**

Tropical waters of America; north to New Jersey and San Diego; not rare on the Florida coast.

Raia birostris Walbaum, Artedi Pisc., 1792, 535, after *Diabolus marinus* Willughby, etc.*Raia manatia* Schneider, Syst. Ichth., 1801, 364, tropical America.*Raia fimbriata* Lacépède, Hist. Nat. Poiss., IV, 1803, 677, Gulf Stream.*Cephalopterus vampyrus* Mitchill, Ann. Lyc. Nat. Hist. N. Y., I, 1823, 23, Delaware Bay.*Cephalopterus giorna* LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 115, Georgia.*Cephaloptera manta* or *Manta americana* Bancroft, Zool. Jour., IV, 1828, 444, Jamaica.*Cephaloptera johri* Müller and Henle, Syst. Besch. Plagiostomen, 1838, 186, West Indies.*Diabolichthys ellioti* Holmes, Proc. Elliott Soc. Nat. Hist., I, 1856, 39, Charleston, S. C.**172. *Manta hamiltoni* (Newman).**San Diego; Gulf of California to Panama, not rare; not known to be distinct from *Manta birostris*.*Brachioptilon hamiltoni* Newman, Zoologist, 1849, 74, Gulf of California.**Subclass HOLOCEPHALI. Chimæras****Order I. CHIMÆROIDEI. Chimæroids****Family 31. CHIMÆRIDÆ. Chimæras****Genus 74. CHIMÆRA Linnæus. *Elephantfishes*.***Chimæra* Linnæus, Syst. Nat., ed. X, 1758, 236 (*C. monstrosa* Linnæus).**173. *Chimæra monstrosa* Linnæus.**

Deep waters of the Atlantic; off Portugal and off the American coast from Cape Cod northward.

Chimæra monstrosa L., Syst. Nat., ed. X, 1758, 236, Atlantic.*Chimæra mediterranea* Risso, Europ. Mérid., III, 1826, 168, Nice.*Chimæra cristata* Faber, Natur. der Fische Islands, 1829, 45, Iceland.*Callorhynchus centrina* and *Callorhynchus atlanticus* Gronow, Cat. Fishes, 15, 16, 1854.

Genus 75. BATHYALOPEX Collett.

Bathyalopex Collett, Arch. Math. Natur., XXXIII, 1901, 125 (*Chimæra mirabilis* Collett).

174. Bathyalopex plumbeus (Gill).

Gulf Stream in deep water.

Chimæra plumbea Gill, Bull. Phil. Soc. Wash., Dec., 1877, 182, La Have Bank, lat. 42° 40' N., long. 63° 23' W., in 350 fathoms.

175. Bathyalopex abbreviatus (Gill).

Chimæra abbreviata Gill, Proc. U. S. Nat. Mus., VI, 1883, 254, at 40° N., long. 67° W., in 1,290 fathoms.

Genus 76. PSYCHICHTHYS Fowler.

Psychichthys Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 419 (*Hydrolagus waitei* Fowler).

176. Psychichthys affinis (Capello).

Open sea, from Cape Cod to Portugal.

Chimæra affinis Capello, Jour. Soc. Math., Lisbon, IV, 1868, 314, Portugal in deep water.

Genus 77. HYDROLAGUS Gill.

Hydrolagus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 331 (*Chimæra colliei* Lay and Bennett).

177. Hydrolagus colliei (Lay and Bennett). *Ratfish; Elephantfish.*

Pacific coast, Monterey to Alaska; abundant in cold water at no great depth.

Chimæra colliei Lay and Bennett, Beechey's Voy., Zool., 1839, 71, North Pacific.

Family 32. RHINOCHIMÆRIDÆ**Genus 78. HARRIOTTA** Goode and Bean.

Harriotta Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1895, 471 (*H. raleighana* Goode and Bean).

Antelochimæra Tanaka, Jour. Coll. Sci., Imp. Univ. Tokyo, XXVIII, art. 8, 1909, Japan (*A. chatirhamphus* Tanaka).

178. Harriotta raleighana Goode and Bean.

Deep water off the north Atlantic coast of the United States.

Harriotta raleighana Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (Jan. 26, 1895), 472, pl. 19, Gulf Stream at 39° N., 70° W.

179. Harriotta curtiss-jamesi Townsend and Nichols.

Deep water off Lower California.

Harriotta curtiss-jamesi Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII, 1925, 6, fig. 2, off Lower California, lat. 26°, in 645 fathoms.

Class IV. PISCES. True fishes**Subclass ACTINOPTERI****Order J. GLANIOSTOMI****Family 33. ACIPENSERIDÆ. Sturgeons****Genus 79. ACIPENSER**¹⁷ Linnæus. *Sturgeons.*

Acipenser Linnæus, Syst. Nat., ed. X, 1758, 237 (*A. sturio* L.).

Ichthocolla Geoffroy, Deser. de 719 Plantes, etc., 1767, 399 (presumably *A. huso* L.).

Sterleta Gildenstädt, Nov. Com. Sci. Petropol., XVI, 1772, 533 (*A. ruthenus* L.).

Sturio Rafinesque, Indice, 1810, 41 (*Sturio vulgaris* Rafinesque=*A. sturio* L.).

Sterletus Rafinesque, Ichth. Ohiensis, 1820, 80 (*A. scrobinus* Rafinesque=*A. fulvescens* Rafinesque).

¹⁷ This group ultimately may need subdivision into distinct genera, but none of the many proposed is adequately defined.

- Helops* Brandt and Ratzeburg, Medizinische Zoologie, II, 1833, 3, 349 (*A. stellatus* Pallas = *A. halops* Pallas).
- Sterletus* Brandt and Ratzeburg, loc. cit., 349 (*A. ruthenus* L.).
- Sturio* Müller, Anab. Myxinoiden, 1835, 77 (*A. sturio* L.).
- Antaceus* Heckel and Fitzinger, Ann. Wiener Mus., I, 1836, 293 (*A. schypa* Eichwald).
- Lioniscus* Heckel and Fitzinger, loc. cit., 370 (*A. glabra* Fitzinger).
- Sterletus* Bonaparte, Cat. Metod., 1845, 21 (*A. vultharius* L.).
- Ellops* Gistel, Naturg. Thierreichs, IX, 1848 (*A. helops* Pallas).
- Schipa* Brandt, Bull. Acad. Sci. Petersb., VII, 1850, 113 (*A. schypa* Eichwald).
180. *Acipenser transmontanus* Richardson. *White sturgeon; Oregon sturgeon; Sacramento sturgeon.*
Pacific coast of North America, from Monterey to Alaska; once abundant, now nearly extinct; largest of the sturgeons, reaching a weight of 1,000 pounds. A record sturgeon, *Acipenser transmontanus*, taken at Astoria, weighed 1,900 pounds.
- Acipenser transmontanus* Richardson, Fauna Bor.-Amer., III, 1836, 278, Fort Vancouver.
- Acipenser brachyrhynchus* Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 15, San Francisco.
- Acipenser aleutensis* Fitzinger and Heckel, Ann. Wien. Mus. Naturg., 1836, Aleutian Islands, after Pallas.
- Acipenser caryi* Duméril, Nouv. Arch. Mus., III, 1867, 169, San Francisco.
- Acipenser ayresi* Duméril, loc. cit., 171, San Francisco.
- Acipenser putnami* Duméril, loc. cit., 178, San Francisco.
181. *Acipenser oxyrhynchus* Mitchill. *Common sturgeon.*
New York to Carolina, once abundant along the shores; very close to the common sea sturgeon of Europe (*Acipenser sturio* L.), but with fewer lateral plates and rougher ossification; the two perhaps identical.
- Acipenser oxyrhynchus* Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1814, 462, New York.
- Acipenser mitchilli* Duméril, Nouv. Arch. Mus., III, 1867, New York.
- Acipenser kennicotti* Duméril, loc. cit., James River.
- Acipenser girardi* Duméril, loc. cit., Maryland.
- Acipenser macrorhinus* Duméril, loc. cit., New York.
- Acipenser milberti* Duméril, loc. cit., New York.
- Acipenser bairdi* Duméril, loc. cit., Maryland.
- Acipenser storeri* Duméril, loc. cit., Boston.
- Acipenser holbrooki* Duméril, loc. cit., Charleston.
- Acipenser lecontei* Duméril, loc. cit., New York.
182. *Acipenser brevirostris* LeSueur. *Short-nosed sturgeon.*
Cape Cod to Florida.
- Acipenser brevirostrum* LeSueur, Trans. Amer. Phil. Soc., I, 1818, 290, Atlantic coast.
- Acipenser microrhynchus* Duméril, Hist. Nat. Poiss., II, 1870, 105 and 164, New York.
- Acipenser lesueurii* Valenciennes, in Duméril, loc. cit., 105 and 166, Atlas, pl. 16, figs. 1 and 1a, New York.
- Acipenser dekayi* Duméril, loc. cit., 105 and 168, New York.
183. *Acipenser acutirostris* Ayres. *Green sturgeon.*
Pacific coast of America, ascending rivers from Monterey northward; not rare.
- Acipenser acutirostris* Ayres, Proc., Calif. Acad. Nat. Sci., I, 1854, 14, San Francisco.
- Acipenser medirostris* Ayres, loc. cit., 15, San Francisco.
- Acipenser (Antaceus) agassizii* Duméril, Nouv. Arch. Mus. Paris, III, 1867, 181, Pl. XI, figs. 2, 2a, 2b, San Francisco.
- Acipenser (Antaceus) alexandri* Duméril, loc. cit., 183, Pl. XV, figs. 1, 1a, 1b, San Francisco.
- Acipenser (Antaceus) oligopeltis* Duméril, loc. cit., 184, Pl. XV, figs. 2, 2a, 2b, San Francisco.

184. *Acipenser fulvescens* Rafinesque. *Lake sturgeon*; *Ohio sturgeon*; *Red sturgeon*.
Mississippi Valley, Great Lakes and northward, ascending rivers, but not entering the sea; varying much with age.
Acipenser fulvescens Rafinesque, Amer. Month. Mag., I, August, 1817, 288, Great Lakes.
Acipenser rubicundus LeSueur, Trans. Amer. Phil. Soc., I, 1818, 388, Lakes Ontario, Erie, and all the upper lakes.
Acipenser maculosus LeSueur, loc. cit., 393, Ohio River; young.
Accipenser serotinus Rafinesque, Ichth. Ohiensis, 1820, 80, Ohio River.
Accipenser ohiensis Rafinesque, loc. cit., 81, Ohio River.
Accipenser macrostomus Rafinesque, loc. cit., 81, Ohio River.
Dineclus truncatus Rafinesque, loc. cit., 82; erroneous, based on a drawing by Audubon.
Acipenser rupertianus Richardson, Fauna Bor.-Amer., III, 1836, 311, Albany River, Rupert Land.
Acipenser laevis Agassiz, Lake Superior, 1850, 267; Lake Superior.
Acipenser carbonarius Agassiz, loc. cit., 271, Lake Superior.
Acipenser rhynchæus Agassiz, loc. cit., 276, Lake Superior.
Acipenser liopeltis Günther, Cat. Fishes, VIII, 1870, 341, Mississippi.
Acipenser (Huso) copei Duméril, Hist. Nat. Poiss., 1870, 105 and 108, supposedly upper Missouri.
Acipenser (Huso) rauchi Duméril, loc. cit., 105 and 118, Osage River, Mo.
Acipenser (Huso) richardsoni Duméril, loc. cit., 105 and 120, upper Mississippi.
Acipenser (Huso) anasimos Duméril, loc. cit., 105 and 122, Missouri River at St. Louis.
Acipenser (Huso) paranasimos Duméril, loc. cit., 105 and 124, Huntsville, Ala.
Acipenser (Huso) anthracinus Duméril, loc. cit., 105 and 126, Lake Erie.
Acipenser (Huso) megalaspis Duméril, loc. cit., 105 and 133, Lake Champlain.
Acipenser (Huso) lamarii Duméril, loc. cit., 105 and 139, Mississippi River or Lake Erie.
Acipenser (Huso) atalaspis Duméril, loc. cit., 105 and 141, Saskatchewan River.
Acipenser (Huso) rafinesquii Duméril, loc. cit., 105 and 143, Ohio River.
Acipenser (Huso) rosarium Duméril, loc. cit., 105 and 152, Atlas, pl. 17, figs. 2 and 2a, upper Mississippi or Lake Erie.
Acipenser (Huso) platyrhinus Duméril, loc. cit., 105 and 154, upper Mississippi or Lake Erie.
Acipenser (Huso) kirtlandi Duméril, loc. cit., 105 and 161, Lake Erie.
Acipenser (Huso) neritnianus Duméril, loc. cit., 105 and 162, Michigan.
Acipenser (Antaceus) cincinnati Duméril, loc. cit., 220 and 228, Ohio River.
Acipenser (Antaceus) buffalo Duméril, loc. cit., 220 and 231, Lake Erie, Buffalo.
- Genus 80. SCAPHIRHYNCHUS Heckel. *Shovelnose sturgeons*.
Scaphirhynchus Heckel, Ann. Mus. Naturg., I, 1835, 71 (*S. rafinesquei* Heckel = *Acipenser platyrhynchus* Rafinesque); not *Scaphorhynchus* Maximilian, a genus of birds.
Scaphirhynchops Gill, Trans. Amer. Phil. Soc., V, 1863, 12, 178 (*Acipenser platyrhynchus* Rafinesque).
185. *Scaphirhynchus platyrhynchus* (Rafinesque). *Shovelnose sturgeon*; *Switchtail*; *Hackleback*; *Sand sturgeon*.
Mississippi Valley; common in the larger streams.
Acipenser platyrhynchus Rafinesque, Ichth. Ohiensis, 1820, 80, Ohio River.
- Genus 81. PARASCAPHIRHYNCHUS Forbes and Richardson.
Parascaphirhynchus Forbes and Richardson, Bull. Ill. Lab. Nat. Hist., VII, 1905, 38 (*P. albus* Forbes and Richardson).
186. *Parascaphirhynchus albus* Forbes and Richardson. *White shovelnose sturgeon*; *White sturgeon*.
Mississippi River; rare.
Parascaphirhynchus albus Forbes and Richardson, Bull. Ill. Lab. Nat. Hist., VII, 1905, 38, Mississippi River at Grafton, Ill.

Order K. SELACHOSTOMI

Family 34. POLYODONTIDÆ. Paddlefishes

Genus 82. POLYODON Lacépède.

Polyodon Lacépède, Bull., Soc. Philom., 1797, 49 (*P. folium* Lacépède).
Spathularia Shaw, Gen. Zool., V, 1804, 362 (*S. reticulata*=*Squalus*
spathula Walbaum).

Platirostra LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817 (1818), 228
(*P. edentula*).

Platirostra Rafinesque, Ichth. Ohiensis, 1820, 83 (*P. edentula*).

Proceros Rafinesque, loc. cit., 87 (*P. maculatus*).

187. *Polyodon spathula* (Walbaum). Paddlefish; Spoonbill cat; Duckbill cat; Spadefish.

Mississippi Valley and south in the larger streams, reaching a weight of 173 pounds; rare in Lake Erie.

Squalus spathula Walbaum, Artdi Pisc., 1792, 522; after *Spathula* Rosier, Jour. Phys., 1774, 384, pl. 2; no locality given.

Polyodon feuille Lacépède, Hist. Nat. Poiss., I, 1798, 402, locality unknown.

Polyodon folium Bloch and Schneider, Syst. Ichth., 1801, 457; after Lacépède.

Spatularia reticulata Shaw, Gen. Zool., V, 1804, 362, after Lacépède.

Platirostra edentula LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 227, Ohio River.

Acipenser lagenarius Rafinesque, Ichth. Ohiensis, 1820, 86, Ohio River.
Proceros maculatus Rafinesque, loc. cit., 87, Mississippi River at St. Genevieve, Mo.

Proceros vittatus Rafinesque, loc. cit., 1820, 86, 87, Lake Ontario.

Order L. HOLOSTEI

Suborder GINGLYMODI

Family 35. LEPISOSTEIDÆ. Gar pikes

Genus 83. LEPISOSTEUS Lacépède. Gar pikes.

Lepisosteus Lacépède, Hist. Nat. Poiss., V, 1803, 331 (*L. gavalis* Lacépède=*Esox osseus* Linnæus).

Sarchirus Rafinesque, Jour. Acad. Nat. Sci. Phila., I, 1818, 419 (*S. vittatus* Rafinesque).

Lepidosteus Agassiz; corrected spelling.

188. *Lepisosteus osseus* (Linnæus). Long-nosed gar; Billfish; Common gar pike; Ohio gar; Ohio garfish; Billy gar.

Maryland to Florida and Louisiana, in coastwise streams; also (*huronensis*) Great Lakes and the Mississippi Valley; the most abundant of the gars.

Esox osseus Linnæus, Syst. Nat., ed. X, 1758, 313, after Artdi; based on *Acus maxima squamosa viridis*, the green gar fish of Catesby, 1738, pl. 30, Virginia.

Lepisosteus gavalis Lacépède, Hist. Nat. Poiss., V, 1803, 333, "lakes and rivers of both Indies."

Lepisosteus longirostris Rafinesque, Ichth. Ohiensis, 1820, 74, Muskingum River, Ohio; head.

Macrognathus loricatus Gronow, Cat. Fishes, 1854, 148, after Linnæus.

Lepisosteus crassus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, Bombay Hook, Delaware River.

Lepidosteus louisianensis Duméril, Hist. Nat. Poiss., 1870, 343, New Orleans.

Lepisosteus huronensis Richardson, Fauna Bor.-Amer., III, 1836, 237, Penitanguishene, Lake Huron.

?*Sarchirus vittatus* Rafinesque, loc. cit., 69, Ohio River; young; not identifiable.

?*Sarchirus argenteus* Rafinesque, loc. cit., 86, Ohio River; young; not identifiable.

Lepidosteus semiradiatus Agassiz, Poiss. Fossiles, II, 1836, 2, pl. 2.

- Lepisosteus bison* DeKay, New York Fauna: Fishes, 1842, 271, Buffalo, N. Y.
Lepisosteus lineatus Thompson, Hist. Vermont, 1842, 145, Lake Champlain.
Lepisosteus leptorhynchus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 351, Devil River, Tex.
Lepisosteus otarius Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 86 "Platte River near Fort Riley"; but Fort Riley was on the Kansas River.
Lepisosteus milberti Duméril, Hist. Nat. Poiss., 1870, 323 and 328, New York.
Lepisosteus harlani Duméril, loc. cit., 323 and 329, Wabash River.
Lepisosteus smithi Duméril, loc. cit., 323 and 330, upper Mississippi.
Lepisosteus ayresi Duméril, loc. cit., 323, 331, Wabash River.
Lepisosteus copei Duméril, loc. cit., 323, 332, northern North America.
Lepisosteus lesueurii Duméril, loc. cit., 323, 335, Wabash River.
Lepisosteus elizabeth Duméril, loc. cit., 323, 336, no locality.
Lepisosteus troosti Duméril, loc. cit., 323, 339, United States.
Lepisosteus piquotianus Duméril, loc. cit., 323, 340, Lake Erie.
Lepisosteus thompsoni Duméril, loc. cit., 323, 342, Upper Mississippi.
Lepisosteus lamarii Duméril, loc. cit., 323, 337, northern North America.
? *Lepisosteus clintonii* Duméril, loc. cit., 323, 338, no locality.
Lepisosteus horatii Duméril, loc. cit., 323, 341, northern North America.

Genus 84. CYLINDROSTEUS Rafinesque. *Short-nosed gars.*

Cylindrosteus Rafinesque, Ichth. Ohiensis, 1820, 72 (*Lepisosteus platostomus* Rafinesque).

189. *Cylindrosteus platostomus* (Rafinesque).

Mississippi Valley and Great Lakes; common.

Lepisosteus platostomus Rafinesque, Ichth. Ohiensis, 1820, 72, Ohio River.¹⁵

Lepisosteus oxyurus Rafinesque, loc. cit., 73, Ohio River.

Lepisosteus albus Rafinesque, loc. cit., 73, Ohio River.

Lepisosteus grayi, Agassiz, Poiss. Fossiles, II, 1836, 2, Louisiana.

Lepisosteus (Cylindrosteus) oculatus Winchell, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 183, Huron River, Mich.

Cylindrosteus zadockii Duméril, Hist. Nat. Poiss., II, 1870, 348, 353, Upper Mississippi.

Cylindrosteus rafinesquii Duméril, loc. cit., 348, 352, United States.

190. *Cylindrosteus scabriceps* Fowler.

Lower Missouri River.

Cylindrosteus scabriceps Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 607, Pl. XXXVIII, figs. 8, 9, Leavenworth, Kans.; a doubtful species.

191. *Cylindrosteus agassizii* Duméril.

Missouri Basin.

Cylindrosteus agassizii Duméril, Hist. Nat. Poiss., II, 1870, 351, St. Louis.

Cylindrosteus productus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 86, San Antonio, Tex.

192. *Cylindrosteus castelnaudii* Duméril.

Florida and Louisiana.

Cylindrosteus castelnaudii Duméril, Hist. Nat. Poiss., II, 1870, 355, Lake Lafayette, Florida.

Cylindrosteus bartoni Duméril, loc. cit., 356, New Orleans.

Lepisosteus latirostris Girard, Pac. R. R. Surv., X, pl. 4, Fishes, 1858, 352, Rio Pecos, Tex.

193. *Cylindrosteus megalops* Fowler.

Florida.

Cylindrosteus megalops Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 609, Pl. XXXVIII, figs. 15, 16, Bayport, Fla.; a doubtful species.

¹⁵ Many other tributary streams mentioned.

Genus 85. *ATRACTOSTEUS* Rafinesque. *Alligator gars.*

Litholepis Rafinesque, Amer. Month. Mag., III, 1818, 447 (*L. adamantinus* Rafinesque), based on a fancy painting by Audubon of an imaginary fish.

Atractosteus Rafinesque, Ichth. Ohiensis, 1820, 72 (*Lepisosteus ferox* Rafinesque).

194. *Atractosteus spatula* (Lacépède). *Mississippi alligator gar.*

Lower Mississippi Valley in the larger streams, reaching a length of 5 feet or more.

Lepisosteus spatula Lacépède, Hist. Nat. Poiss., V, 1803, 333, no locality.

Lepisosteus (Atractosteus) ferox Rafinesque, Ichth. Ohiensis, 1820, 73. Ohio River.

Lepidosteus (Atractosteus) berlandieri Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 353, Tamaulipas.

Atractosteus lucius Duméril, Hist. Nat. Poiss., 1870, 364, Tampico, Mexico.

195. *Atractosteus tristæchus* (Bloch and Schneider). *Cuban alligator gar; Manjuari.*

Rivers of Cuba.

Esox tristæchus Bloch and Schneider, Syst. Ichth., 1801, 395, Cuba, after Manjuari of Para.

Lepidosteus manjuari Poey, Memorias, I, 1860, 273, Cuba.

196. *Atractosteus tropicus* Gill.

Central America; Nicaragua.

Atractosteus tropicus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 172, streams near Panama.

Order M. **HALECOMORPHI**Family 36. **AMIIDÆ.** BowfinsGenus 86. *AMIA* Linnæus.

Amia Linnæus, Syst. Nat., ed. XII, 1766, 500 (*A. calva*); not of Gronow, 1763, which is a nonbinomial name for *Apogon*.

Amiatus Rafinesque, Anal. Nat., 1815, 88 (*A. calva*); substitute for *Amia* regarded as too short for symmetry.

197. *Amia calva* Linnæus. *Bowfin; John A. Grindle; Mudfish; Lawyer; Poisson de marais; Choupiguel* (Louisiana).

Great Lakes, Mississippi Valley to Virginia, Florida, and Texas, in lakes and sluggish streams.

Amia calva Linnæus, Syst. Nat., ed. XII, 1766, 500, Charleston, S. C.

Amia ocellicauda Richardson, Fauna Bor.-Amer., III, 1836, 236, Lake Huron, male.

Amia occidentalis DeKay, New York Fauna: Fishes, 1842, 269, St. Marys River, Mich.

Amia marmorata Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 412, New Orleans.

Amia ornata LeSueur, in Cuvier and Valenciennes, loc. cit., 420, Chibault, Mississippi River.

Amia viridis LeSueur, loc. cit., 421, New Orleans.

Amia canina Cuvier and Valenciennes, loc. cit., 424, Lake Erie; after Kirtland.

Amia lentiginosa Cuvier and Valenciennes, loc. cit., 426; after Bonnatte; no locality.

Amia subcærulea Cuvier and Valenciennes, loc. cit., 427, New Orleans.

Amia cinerea Cuvier and Valenciennes, loc. cit., 430, Charleston, S. C.

Amia reticulata LeSueur, loc. cit., 431, Wabash River.

Amia thompsoni Duméril, loc. cit., II, 1870, 419, Lake Champlain.

Amia piquotii Duméril, loc. cit., 1870, 423, upper Mississippi.

Superorder TELEOSTEI. Bony fishes

Order N. ISOSPONDYLI (Physostomi; Malacopterygii). Soft-rayed fishes

Suborder ELOPOIDEA

Family 37. ELOPIDÆ. Tenpounders

Genus 87. ELOPS Linnæus.

Elops Linnæus, Syst. Nat., ed. XII, 1766, 518 (*E. saurus*).

Mugilomorus Lacépède, Hist. Nat. Poiss., V, 1803, 398 (*M. anna-carolina*).

Trichonotus Rafinesque, Anal. Nat., 1815, 88 (*Mugilomorus anna-carolina*); substitute for *Mugilomorus*, considered objectionable.

198. *Elops saurus* Linnæus. Tenpounder; John Mariggle; Bonnyfish; Bonefish; Big-eyed herring; Malajuelo real; Lisa francesa.

Tropical Atlantic; West Indies, north to Long Island; common.

Elops saurus Linnæus, Syst. Nat., ed. XII, 1766, 518, Carolinas.

Argentina carolina Linnæus, loc. cit., 519, Carolinas.

Mugilomorus anna-carolina Lacépède, Hist. Nat. Poiss., V, 1803, 398, South Carolina.

Elops incermis Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 445, New York.

199. *Elops hawaiiensis* Regan. Awa.

Hawaii and Pacific coast of Mexico north to Gulf of California; Hawaii.

Elops hawaiiensis Regan, Ann. Mag. Nat. Hist., 9th ser., III, 1909, 39, Hawaii.

Family 38. MEGALOPIDÆ. Tarpons

Genus 88. TARPON Jordan and Evermann. Grande écaille.

Tarpon Jordan and Evermann, Fishes North and Mid. Amer., 1896, 409 (*Megalops atlanticus* Cuvier and Valenciennes).

200. *Tarpon atlanticus* (Cuvier and Valenciennes). Tarpon; Tarpum; Grande écaille; Silverfish; Sabalo; Savanilla.

Long Island to Brazil; abundant off Florida, breeding in the West Indies.

Megalops atlanticus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 398, Guadeloupe; San Domingo; Martinique; Porto Rico.

Megalops elongatus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 224, Long Island.

Suborder ALBULOIDEI

Family 39. ALBULIDÆ. Ladyfishes

Genus 89. ALBULA (Gronow) Bloch and Schneider. Ladyfishes.

Conorhynchus Nozeman, Act. Select., III, 1757, 382; non-binomial.

Albula Gronow, Zoophyl., 1763, 102; non-binomial.

Albula Bloch and Schneider, Syst. Ichth., 1801, 432 (*A. conorhynchus* = *Esox vulpes* L.).

Butyrinus Lacépède, Hist. Nat. Poiss., V, 1803, 45 (*B. banana* = *Esox vulpes* L.).

Glossodus Cuvier, in Agassiz, Spix, Pisc. Brasil., 1829, 48 (*A. forskæli* = *Esox vulpes* L.).

201. *Albula vulpes* (Linnaeus). Ladyfish; Bonefish; Macabi; Sanducha; Bananafish.

Tropical seas, ranging northward to San Diego; Long Island and southern Japan; perhaps more than one species included.

Unbarana Maregrave, Hist. Brazil, 1648, Brazil.

Vulpes bahamensis Catesby, Nat. Hist. Carolinas, etc., 1737, Pl. II, fig. 1, Bahamas; non-binomial.

Esox vulpes Linnæus, Syst. Nat., ed. X, 1758, 313, Bahamas; based on the bonefish, *Vulpes bahamensis* of Catesby.

Argentina glossodonta Forskål, Descr. Anim., 1775, 68, Djidda, Arabia.
Macabi Parra, Diff. Piezas Cuba, 1787, 88, pl. 35, fig. 1, Cuba; based on *Unbarana* of Maregrave.

Synodus argenteus Bloch and Schneider, Syst. Ichth., 1801, 398, Asia.

Clupea brasiliensis Bloch and Schneider, loc. cit., 427, Brazil.

Albula conorhynchus Bloch and Schneider, loc. cit., 432, Antilles; after Gronow and Plumier; called *Albula plumieri* on plate 86.

Amia immaculata Bloch and Schneider, loc. cit., Central America; after *Macabi* of Parra.

Butyrinus banana Lacépède, Hist. Nat. Poiss., V, 1803, 46, Ile de France.

Clupea macrocephala Lacépède, loc. cit., 426, Martinique; on a drawing by Plumier.

Glossodus forskåli Agassiz, in Spix, Pisc. Brasil., 1829, 49, Bahia; called *Engraulis sexicus* and *Engraulis bahiensis* on plates 22 and 24.

Albula parra Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 339, Martinique; Bahia; Rio de Janeiro.

Albula goreensis Cuvier and Valenciennes, loc. cit., 342, Gorea.

Albula neoguinaica Cuvier and Valenciennes, loc. cit., 350, New Guinea.

Albula seminuda Cuvier and Valenciennes, loc. cit., 351, New Guinea.

Albula erythrocheilus Cuvier and Valenciennes, loc. cit., 352, Friendly Islands.

Albula forsteri Cuvier and Valenciennes, loc. cit., 354, Tahiti.

Albula rostrata Gronow, Cat. Fishes, 1854, 189, American Ocean.

Genus 90. DIXONINA Fowler.

Dixonina Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 651 (*D. nemoptera* Fowler).

202. *Dixonina nemoptera* Fowler.

San Domingo, West Indies.

Dixonina nemoptera Fowler, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 652, San Domingo.

Suborder CLUPEOIDEI

Family 40. CHANIDÆ. Milkfishes

Genus 91. CHANOS Lacépède.

Chanos Lacépède, Hist. Nat. Poiss., V, 1803, 395 (*C. arabicus*).

Lutodeira Van Hasselt, in Rüppell, Atlas Reise Nord Africa, 1828, 17 (*L. indica* Rüppell = *Mugil chanos* L.)

Ptycholepis Gray, in Dieffenbach's Travels in New Zealand, II, about 1842, 218 (*Mugil salmoneus* Forster).

203. *Chanos cyprinella* Cuvier and Valenciennes. Milkfish; Sabalo; Awa; Chani; Anged.

Gulf of California to Panama and Hawaii; replaced in the western Pacific by *Chanos chanos* Forskål.

Chanos cyprinella Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 194, 198, Hawaiian Islands.

Family 41. HIODONTIDÆ. Mooneyes

Genus 92. HIODON LeSueur. Mooneyes.

Hiodon LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 334 (*H. tergisis* LeSueur).

Glossodon Rafinesque, Amer. Month. Mag., II, September, 1818, 354 (*G. harengoides*).

Hyodon, corrected orthography.

204. *Hiodon tergisis* LeSueur. Mooneye; Toothed herring.

Great Lakes and Mississippi Valley, north to Assiniboine River.

Hiodon tergisis LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 364, Ohio River.

Glossodon harengoides Rafinesque, Amer. Month. Mag., II, September, 1818, 354, Ohio River.

Glossodon heterurus Rafinesque, loc. cit., 354, Falls of Ohio River.

Hiodon clodalis LeSueur, loc. cit., Ohio River at Pittsburgh.

Hyodon vernalis Rafinesque, Ichth. Ohiensis, 1820, 42, Ohio River.

205. *Hyodon selenops* Jordan and Bean. *Southern mooneye*; *Southern toothed herring*.
Tennessee, Cumberland, and Alabama Rivers.
Hyodon selenops Jordan and Bean, Bull. U. S. Nat. Mus., X, 1877, 67, Chattanooga, Tenn.

Genus 93. **AMPHIODON** Rafinesque. *Goldeyes*.

Amphiodon Rafinesque, Jour. Phys., Paris, 1819, 421, Ohio River (*A. alosoides*; misprinted *alveoides*).

Elatonistius Gill and Jordan, Bull. U. S. Nat. Mus., X, 1877, 68 (*Hyodon chrysopsis* Richardson = *Amphiodon alosoides* Rafinesque).

206. **Amphiodon alosoides** Rafinesque. *Goldeye*; *La Quesche*; *Naccaysh*.
Ohio River and north to Saskatchewan; abundant and much valued in Manitoba.

Amphiodon alosoides (misprinted *alveoides*) Rafinesque, Jour. Phys., Paris, 1819, 421, Ohio River.

Hyodon amphiodon Rafinesque, Ichth. Ohiensis, 1820, 42, Ohio River near the falls.

Hyodon chrysopsis Richardson, Fauna Bor.-Amer., III, 1836, 232, Cumberland House, Saskatchewan River.

Cyprinus (Abramis?) smithii Richardson, loc. cit., 110, Richelieu River.

Family 42. **CLUPEIDÆ**. Herrings

Genus 94. **CLUPEA** Linnæus. *Herrings*.

Clupea Linnæus, Syst. Nat., ed. X, 1758, 317 (*C. harengus* L.).

Rogenia Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 340 (*R. alba*, "the whitebait," the young of *harengus*).

207. **Clupea harengus** Linnæus. *Common herring*.

North Atlantic Ocean, south on our coast to Sandy Hook; Massachusetts; New Hampshire.

Clupea harengus Linnæus, Syst. Nat., ed. X, 1758, 317, seas of Europe.

Clupea membras Pallas, Zoogr. Rosso.-Asiat., III, 1811, 211, Baltic Sea.

Clupea halec Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 451, New York.

Clupea vittata Mitchell, loc. cit., 456, New York.

Clupea cærulea Mitchell, loc. cit., 457, New York.

Clupea elongata LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 234, Massachusetts.

Clupea leachi Yarrell, Zool. Jour., V, 1829, 277, pl. 12, England.

Clupea minima Peck, in Storer, Rept. Fish. Mass., 1839, 113, New Hampshire.

Clupea lincolata Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 256, locality unknown.

Rogenia alba Cuvier and Valenciennes, loc. cit., 340, England; the young form known as whitebait.

208. **Clupea pallasii** Cuvier and Valenciennes. *California herring*.

Pacific coast, from Kamchatka to San Diego.

Clupea harengus var. *Pallas*, Zoogr. Rosso.-Asiat., III, 1811, 209, Kamchatka.

Clupea pallasii Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 253, Kamchatka; based on Pallas's specimens.

Clupea mirabilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 138, San Francisco.

Spratelloides bryoporus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 25, Sitka; young.

Genus 95. **POMOLOBUS** Rafinesque. *Alewives*.

Pomolobus Rafinesque, Ichth. Ohiensis, 38, 1820 (*P. chrysochloris* Rafinesque).

Alausella Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 36 (*Clupea parvula* Mitchell = *Clupea mediocris* Mitchell).

Subgenus **ALAUSELLA** Gill.

209. *Pomolobus pseudoharengus* (Wilson). *Alewife*; *Branch herring*; *Gaspereau*; *Wall-eyed herring*; *Big-eyed herring*; *Sawbelly*; *Ellwife*; *Bang*. Atlantic coast of the United States; Lake Ontario and landlocked in the "Finger Lakes" of New York.
Clupea pseudoharengus Wilson, in Rees's Encycl., IX, about 1811, probably Philadelphia.
Clupea vernalis Mitchill, Rept. Fish. N. Y., 1814, 22, and Trans., Lit. Phil. Soc. N. Y., I, 1815, 454, New York.
Clupea megalops Rafinesque, Amer. Month. Mag., 1818, 206, Delaware River.
Meletta venosa Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 374, New York.
Pomolobus pseudoharengus lacustris Jordan, Man. Vert., ed. I, 1876, 265, Cayuga Lake, New York; specimens landlocked.
210. *Pomolobus mediocris* (Mitchill). *Hickory shad*; *Hickory jack*; *Fall herring*; *Tailor herring*; *Mattowacca*. Atlantic coast of United States from Maine to Florida.
Clupea mediocris Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 450, New York.
Clupea mattowacca Mitchill, loc. cit., 451, pl. 5, fig. 8, New York.
? *Clupea parvula* Mitchill, loc. cit., 452, New York.
? *Clupea pusilla* Mitchill, loc. cit., 452, New York.
Clupea fasciata LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 233, Massachusetts.
Clupea virescens DeKay, New York Fauna: Fishes, 1842, 242, New York.
Alosa lineata Storer, Proc., Bost. Soc. Nat. Hist., II, 1847, 242, Massachusetts.
211. *Pomolobus æstivalis* (Mitchill). *Glut herring*; *Blueback*; *Black-belly*; *Summer herring*; *Kyack*; *Sawbelly*. Atlantic coast.
Clupea æstivalis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 456, New York.
Alosa cyanonolon Storer, Hist. Fish. Mass., 1867, 161, Provincetown, Mass.
- Subgenus **POMOLOBUS** Rafinesque.
212. *Pomolobus chrysochloris* Rafinesque. *Skipjack*; *Blue herring*; *Nailrod*. Gulf of Mexico and Mississippi Valley; ascending streams, and introduced through the canals into Lake Erie and Lake Michigan.
Pomolobus chrysochloris Rafinesque, Ichth. Ohiensis, 1820, 38, Ohio River.
Meletta sueurii Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 375, Wabash River.
- Genus 96. **ALOSA** Linck. *Shad*.
Alosa Linck, Mag. Neuestes Phys. Naturgesch., 1790, 35 (scarcely defined; type not specified; *Clupea alosa* L. = *Alosa* Cuvier).
Alosa Cuvier, Règne Anim., ed. II, 1829, 319 (*Clupea alosa* L.).
Alosa Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 389 (*Clupea alosa* L.).
213. *Alosa sapidissima* (Wilson). *Common shad*; *American shad*; *North River shad*; *Potomac shad*; *Connecticut River shad*. Atlantic coast of United States, from Miramachi River to Florida; from Monterey northward on the Pacific coast, as an introduced species.
Clupea sapidissima Wilson, in Rees's New Cyclopedia, IXg., neither pagination nor date, but prior to 1812; no locality, but probably Philadelphia.
Clupea indigena Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 454, New York.
Alosa præstabilis DeKay, New York Fauna: Fishes, 1842, 255, pl. 15, fig. 4, New York.
214. *Alosa ohiensis* Evermann. *Ohio shad*. Mississippi River basin; Ohio River.
Alosa ohiensis Evermann, Rept. U. S. Fish Com., XXVII, 1901 (1902), 277, fig. 2, Ohio River at the falls.

- 215. *Alosa alabamæ*** Jordan and Evermann. *Alabama shad*.
Gulf coast of United States; ascending streams.
Alosa alabamæ Jordan and Evermann, Rept. U. S. Fish Com., XXI,
1895 (1896), 203, Black Warrior River, Tuscaloosa, Ala.
- Genus 97. SARDINIA** Poey. *True sardines*.
Sardinia Poey, Memorias, II, 1861, 311 (*S. pseudohispanica* Poey; not
of Jordan and Evermann, which is *Sardinella anchovia* Cuvier and
Valenciennes).
Sardina Antipa, Denkschr. Akad. Wiss. Wien, LXVIII, 1905 (*Clupea*
pilchardus L.).
- 216. *Sardinia cærulea*** (Girard). *California sardine*.
Pacific coast, from Puget Sound to Magdalena Bay; very abundant.
Meletta cærulea Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 138,
San Francisco.
Alausa californica Gill, loc. cit., XIV, 1862, 281, California.
- 217. *Sardinia anchovia*** (Cuvier and Valenciennes). *Sardinia de España*.
West Indies, north to Cuba.
Sardinella anchovia Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 269, Rio Janeiro; Martinique.
*Sardina*¹⁹ *pseudohispanica* Poey, Memorias, II, 1861, 311, Cuba.
- Genus 98. SARDINELLA** Cuvier and Valenciennes. *Smooth-headed sar-*
dines.
Sardinella Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 261,
(*S. aurita* Cuvier and Valenciennes).
- 218. *Sardinella aurita*** Cuvier and Valenciennes. *Smooth sardine*; *Sardina*
de España.
Woods Hole to Florida; recorded from France; usually in rather deep
water.
Sardinella aurita Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 261, coast of France.
- Genus 99. HARENGULA** Cuvier and Valenciennes. *Scaled sardines*.
Harengula Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 280
(*H. latula* Cuvier and Valenciennes).
- 219. *Harengula sardina*** Poey. *Sardina de Ley*.
West Indian fauna, north to Key West.
Harengula sardina Poey, Memorias, II, 1860, 310, Cuba.
Harengula callolepis Goode, Proc. U. S. Nat. Mus., II, 1879, 152,
Bermuda.
- 220. *Harengula macrophthalmus*** (Ranzani). *Sardina Escamuda*; *White-bill*;
Pinceo.
West Indies, Florida to Brazil.
Clupea macrophthalma Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842,
320, Brazil.
Harengula humeralis Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 293, Rio Janeiro; Bahia; Guadeloupe; San Domingo.
Alausa striata Cuvier and Valenciennes, loc. cit; XX, 1847, 429,
Guadeloupe; Bahia.
Alosa bishopi Müller and Troschel, in Schomburgk, Hist. Barbados,
1848, 675, Barbados.
- 221. *Harengula clupeiola*** Cuvier and Valenciennes. *Cailleu*.
West Indies.
Harengula clupeiola Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 289, Guadeloupe Island, West Indies.
- 222. *Harengula maculosa*** Cuvier and Valenciennes.
West Indies.
Harengula maculosa Cuvier and Valenciennes, Hist. Nat. Poiss., XX,
1847, 292, Martinique.
Alosa apicalis Müller and Troschel, in Schomburgk, Hist. Barbados,
1848, 675, Barbados.

¹⁹ Recent examination of Poey's type by Alvin Seale shows that this fish is a *Sardinia* apparently identical with *Clupea anchovia* Cuvier and Valenciennes, not the *Sardinella pseudohispanica* of Jordan and Evermann, which apparently is the same as *Sardinella aurita* Cuvier and Valenciennes.

223. *Harengula pensacolæ* Goode and Bean.
Florida.
Harengula pensacolæ Goode and Bean, Proc. U. S. Nat. Mus., II, 1879,
152, Pensacola, Fla.
224. *Harengula thrissina* (Jordan and Gilbert).
Gulf of California.
Clupea thrissina Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
353, Cape San Lucas.
- Genus 100. LILE Jordan and Evermann.
Lile Jordan and Evermann, Fishes North and Mid. Amer., 1896, 431
(*Clupea stolidifera* Jordan and Gilbert).
225. *Lile stolidifera* (Jordan and Gilbert).
Gulf of California to Panama; Mazatlan, Mexico.
Clupea stolidifera Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
339, Mazatlan.
- Genus 101. OPISTHONEMA Gill. *Thread herring*.
Opisthonema Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 37 (*Clupea
thrissa* Broussonet = *Megalops ogleina* LeSueur); not of Osbeck.
226. *Opisthonema ogleinum* (LeSueur). *Thread herring; Machuelo; Cailleu
tassart; Sprat*.
West Indies, ranging regularly north to Florida and Carolina; Longport,
N. J.; Newport, R. I.; Fortress Monroe.
Clupea thrissa Broussonet, Ichthyologie, fasc. I, 1782, Carolina; Jamaica;
not of Osbeck, 1757, which is a Chinese species of *Clupanodon*.
Megalops ogleina LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 359,
Newport, R. I.
Megalops notata LeSueur, loc. cit., 359, Guadeloupe.
Chatoëssus signifer DeKay, N. Y. Fauna: Fishes, 1842, 264, New York.
Chatoëssus eumorphus Gosse, Naturalist's Sojourn in Jamaica, 1851,
290, Jamaica.
227. *Opisthonema libertate* (Günther). *Sardina machete*.
Pacific coast of Mexico and Central America.
Meletta libertate Günther, Proc. Zool. Soc. Lond., 1866, 603, Libertad,
Central America.
- Genus 102. BREVOORTIA Gill. *Menhaden*.
Brevoortia Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 37 (*Alosa
menhaden* Storer = *Clupea tyrannus* Latrobe).
228. *Brevoortia tyrannus* (Latrobe). *Menhaden; Mossbunker; Bonyfish;
Whitefish; Bugfish; Fatback; Pogey*.
Nova Scotia to West Indies; abundant.
Clupea tyrannus Latrobe, Trans. Amer. Phil. Soc. Phila., V, 1802, 77,
pl. 1, Chesapeake Bay.
Clupea menhaden Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 453,
New York.
Clupea neglecta Rafinesque, Amer. Month. Mag., 1818, 206, Long Island.
Clupea carolinensis Gronow, Cat. Fishes, 1854, 140, South Carolina.
229. *Brevoortia tyrannus breviceaudata* Goode. *Short-tailed menhaden*.
South Atlantic north to Connecticut.
Brevoortia tyrannus breviceaudata Goode, Proc. U. S. Nat. Mus., I, 1878,
34, Noank, Conn.
230. *Brevoortia patronus* Goode. *Gulf menhaden*.
Gulf of Mexico; coast of Texas.
Brevoortia patronus Goode, Proc. U. S. Nat. Mus., I, 1878, 39, Brazos
Santiago, Tex.
- Genus 103. ILISHA Gray.
Platygaster Swainson, Class. Anim., II, 1839, 294 (*Clupea africana*
Bloch); name preoccupied.
Ilisha Gray, in Richardson, Ichthy. China, in Proc. Brit. Assoc., 1845
(1846), 306 (*I. abnormis*); no description.
Pellona Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 300
(*P. orbignyana* = *Pristigaster flavipinnis* Valenciennes).

- 231. *Ilisha caribbæa* Meek and Hildebrand.**
Caribbean Sea.
Ilisha caribbæa Meek and Hildebrand, Marine Fishes of Panama, Pt. 1, Field Mus. Nat. Hist., Zool., XV, Dec. 20, 1923, 191, Pl. X, fig. 1, Porto Bello, Panama.
- Genus 104. CHIROCENTRODON** Günther.
Chirocentrodon Günther, Cat., VII, 1868, 463 (*C. tæniatus* Günther).
Medipellona Jordan and Seale, Mem. Mus. Comp. Zool., LXVII, No. 11, May, 1926, 417 (*Pellona bleekeri* Poey).
- 232. *Chirocentrodon tæniatus* Günther.**
Jamaica.
Chirocentrodon tæniatus Günther, Cat., VII, 1868, 463, Jamaica.
- 233. *Chirocentrodon bleekeri* (Poey).** *Anchoa pelada*.
Matanzas, Cuba.
Pellona bleekeri Poey, Repertorio, II, 1867, 242, Matanzas, Cuba.
- Genus 105. OPISTHOPTERUS** Gill.
Opisthopterus Gill, Proc. Acad. Nat. Sci. Phila., XII, 1861, 38 (*Pristigaster tartoon* Cuvier and Valenciennes).
- 234. *Opisthopterus dovii* (Günther).**
Panama.
Pristigaster dovii Günther, Cat., VII, 1861, 461, Panama.
- 235. *Opisthopterus macrops* (Günther).**
Panama.
Pristigaster macrops Günther, Proc. Zool. Soc. Lond., 1866, 603, Panama.
- Genus 106. PLIOSTEOSTOMA** Norman.
Pliosteostoma Norman, Ann. Mag. Nat. Hist., XI, 1923, 21 (*Pristigaster lutipinnis* Jordan and Gilbert).
- 236. *Pliosteostoma lutipinnis* (Jordan and Gilbert).**
Pacific coast of Mexico.
Pristigaster lutipinnis Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 340, Mazatlan, Mexico.
- Genus 107. ODONTOGNATHUS** Lacépède.
Odontognathus Lacépède, Hist. Nat. Poiss., II, 1799, 221 (*O. mucronatus*).
Gnathobolus Bloch and Schneider, Syst. Ichth., 1801, 556 (*Odontognathus mucronatus* Lacépède.).
- 237. *Odontognathus mucronatus* Lacépède.**
Coast of Guiana.
Odontognathus mucronatus Lacépède, Hist. Nat. Poiss., 1799, 221, pl. 7, fig. 2, Cayenne.
- 238. *Odontognathus panamensis* (Steindachner).**
Panama.
Pristigaster (Odontognathus) panamensis Steindachner, Ichth. Beitr., V, 1876, 24, Panama.
- Genus 108. PRISTIGASTER** Cuvier.
Pristigaster Cuvier, Règne Anim., ed. I, 1817, 176 (type not named; later fixed as *P. cayanus* Cuvier).
- 239. *Pristigaster cayanus* Cuvier.**
Coast of Guiana and northern Brazil.
Pristigaster cayanus Cuvier, Règne Anim., ed. I, 1817, pl. 10, fig. 3, Cayenne.
Pristigaster martin Agassiz, in Spix, Pisc. Brasil., 1829, 55, Brazil.
Pristigaster phaeon Cuvier and Valenciennes, Hist. Nat. Poiss., XX, 1847, 338, mouth of Amazon.

Family 43. DUSSUMIERIIDÆ. Round herrings

- Genus 109. JENKINSIA** Jordan and Evermann.
Jenkinsia Jordan and Evermann, Fishes North and Mid. Amer., 1896, 418 (*Dussumieria stolidifera* Jordan and Gilbert).

240. *Jenkinsia stolidifera* (Jordan and Gilbert).
Gulf of Mexico from Florida to Yucatan.
Dussumieria stolidifera Jordan and Gilbert, Proc. U. S. Nat. Mus., VII,
1884, 25, Key West, Fla.
241. *Jenkinsia lamprotænia* (Gosse).
Jamaica.
Clupea lamprotænia Gosse, Naturalist's Sojourn in Jamaica, 1851, 291,
pl. 1, fig. 2, Jamaica.
- Genus 110. **HALECULA** Jordan.
Halecula Jordan, Fossil Fishes of the Calif. Miocene, VIII, 1925,
(*Etrumeus acuminatus* Gilbert).
242. *Halecula acuminata* (Gilbert).
Gulf of California.
Etrumeus acuminatus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 56,
Gulf of California at Albatross station 3012 in 22 fathoms.
- Genus 111. **ETRUMEUS** Bleeker.
Etrumeus Bleeker, Verh. Bat. Gen. Japan, XXV, 1853, 58, (*Clupea
micropus* Temminck, and Schlegel, a Japanese species).
Perkinsia Rosa Smith Eigenmann, Amer. Nat., XXV, 1891, 153 (*P.
othonops* R. S. Eigenmann).
243. *Etrumeus sadina* (Mitchill). *Round herring*.
Cape Cod to Gulf of Mexico.
Clupea sadina Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 457,
New York.
Alosa teres DeKay, New York Fauna: Fishes, 1842, 262, New York.
244. *Etrumeus micropus* Temminck and Schlegel.
Coast of Japan; Hawaii; found once off Point Loma in California.
Etrumeus micropus Temminck and Schlegel, Fauna Japonica, Poiss.,
1850, 236, pl. 107, fig. 2, Japan.
Perkinsia othonops Rosa Smith Eigenmann, Amer. Nat., XXV, 1891,
153, Point Loma, San Diego, Calif.

Family 44. **DOROSOMIDÆ**. Gizzard shad

- Genus 112. **DOROSOMA** Rafinesque. Gizzard shads.
Dorosoma Rafinesque, Ichth. Ohiensis, 1820, 39 (*D. notata* Rafinesque).
Chatoëssus Cuvier, Règne Anim., ed. 2, II, 1829, 320; in part (includes
Opisthonema, etc.; restricted by Cuvier and Valenciennes to *Megalops
cepediana* LeSueur).
245. *Dorosoma cepedianum* (LeSueur). *Gizzard shad; Hickory shad*.
Cape Cod to Texas, entering all streams and variously landlocked.
Megalops cepedianum LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818,
Delaware and Chesapeake Bays.
Clupea heterura Rafinesque, Amer. Month. Mag., 1818, 354, Ohio River.
Dorosoma notata Rafinesque, Ichth. Ohiensis, 1820, 39, Ohio River.
Chatoëssus ellipticus Kirtland, Rep. Zool. Ohio, 1839, 169, Ohio River.
Dorosoma insociabilis Abbot, Proc. Acad. Nat. Sci. Phila., XII, 1860,
365, Sturgeon Pond, Trenton, N. J.
246. *Dorosoma cepedianum exile* Jordan and Gilbert.
Streams of Texas.
Dorosoma cepedianum exile Jordan and Gilbert, Proc. U. S. Nat. Mus.,
V, 1882, 585, Galveston, Tex.
- Genus 113. **SIGNALOSA** Evermann and Kendall.
Signalosa Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897
(Feb. 9, 1898), 127 (*S. atchafalayæ* Evermann and Kendall).
247. *Signalosa atchafalayæ* Evermann and Kendall.
Coast of Louisiana and southward.
? *Chatoëssus mexicanus* Günther, Cat., VII, 1868, 409, Mexico.
Signalosa atchafalayæ Evermann and Kendall, Bull. U. S. Fish Com.,
XVII, 1897 (Feb. 9, 1898), 127, pl. 7, fig. 4, Atchafalaya River,
Melville, La.

248. *Signalosa atchafalayæ vanhyningi* Weed.
Near Gainesville, Fla.
Signalosa atchafalayæ vanhyningi Weed, Field Mus. Nat. Hist., Zool., XII, October, 1925, 145, Prairie Creek 6 miles southeast of Gainesville, Fla.
249. *Signalosa mexicana* (Günther).
New Orleans to Central America.
Chatoëssus mexicanus Günther, Cat., VII, 1868, 409, Mexico.
250. *Signalosa mexicana campi* Weed.
Streams about Brownsville, Tex.
Signalosa mexicana campi Weed, Field Mus. Nat. Hist., Zool., XII, October, 1925, 143, Resaca de la Guerra, near Brownsville, Tex.
251. *Signalosa petenensis* (Günther).
Lake Peten.
Meletta petenensis Günther, Proc. Zool. Soc. Lond., 1866, 603, Lake Peten, Yucatan.
- Family 45. ENGRAULIDÆ. Anchovies
- Genus 114. ENGRAULIS Cuvier. *Anchovies*.
Engraulis Cuvier, Règne Anim., ed. I, 1817, 174 (*Clupea encrasicholus* L.).
Encrasicholus Fleming, Brit. Anim., 1828, 183 (*Clupea encrasicholus* L.).
252. *Engraulis mordax* Girard. *California anchovy*.
Pacific coast of America, from Vancouver Island to Lower California.
Engraulis mordax Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 138, and in Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 334, Shoalwater Bay, Wash.
253. *Engraulis nanus* Girard. *Bay anchovy*.
San Francisco Bay; not known elsewhere.
Engraulis nanus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 335, San Francisco.
- Genus 115. ANCHOVIELLA²⁰ Fowler. *American anchovies*.
Anchoviella Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911, 211 (*Engraulis perfasciatus* Poey).
Anchoa Jordan and Evermann, Proc. Calif. Acad. Sci., 4th Ser., XV, April 27, 1927, 502 (*Engraulis compressus* Girard).
- Subgenus ANCHOVIELLA Fowler.
254. *Anchoviella perfasciata* (Poey). *Grubber broadhead*.
Florida Keys to Jamaica.
Engraulis perfasciatus Poey, Memorias, II, 1861, 313, Cuba.
255. *Anchoviella miarchus* (Jordan and Gilbert).
Pacific coast of America, from Mazatlan to Panama.
Stolephorus miarchus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 344, Mazatlan; perhaps a larval form.
256. *Anchoviella exigua* (Jordan and Gilbert).
Pacific coast of Mexico at Mazatlan.
Stolephorus exiguus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 343, Mazatlan.
257. *Anchoviella perthecata* (Goode and Bean).
Pensacola, Fla.
Stolephorus perthecatus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 434, Pensacola, Fla.

²⁰ *Anchoviella* differs from *Stolephorus* Lacépède and related Old World genera in the entire absence of ventral scales. The many species cover a variety of forms; *rostralis* and *spinifer* with its relative, being perhaps generically distinct from *perfasciatus*, *epsetus*, and related forms, having many more gillrakers; these latter species constitute the subgenus *Anchoa*, the others the subgenus *Anchoviella* Fowler.

258. *Anchoviella epsetus* (Bonnaterre). *Striped anchovy; Manjua; Anchovy fry.*
Cape Cod to Brazil.
Piquitinga Marcgrave, Hist. Brasil., 1648, 159, Brazil.
Menidia Browne, Hist. Jamaica, 1756, 441, Jamaica; nonbinomial.
Esox epsetus Bonnaterre, Tabl. Ichth., 1788, 175, Jamaica; after Browne.
Atherina brownii Gmelin, Syst. Nat., 1789, 1397, Jamaica; after Browne.
Engraulis tricolor Agassiz, in Spix, Pisc. Brasil., 1829, 51, Bahia, Pará.
Engraulis lemniscatus Cuvier, Règne Anim., ed. 2, II, 1829, 323, Brazil; after *Piquitinga* of Marcgrave.
Stolephorus hiulcus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 343, Clearwater Harbor, Fla.; depth $5\frac{1}{2}$; A, 22.
259. *Anchoviella cubana* (Poey). *Bocon.*
Cuba and Porto Rico.
Engraulis cubanus Poey, Synopsis, 1868, 420, Cuba.
260. *Anchoviella ischana* (Jordan and Gilbert).
Pacific coast of America, from Mazatlan to Panama.
Stolephorus ischanus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 340, Mazatlan.
Stolephorus starksi Gilbert and Pierson, Fishes of Panama, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2813, Panama.
261. *Anchoviella cultrata* (Gilbert).
Santa Margarita Island, Lower California.
Stolephorus cultratus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 544, Santa Margarita Island, Lower California.
262. *Anchoviella delicatissima* (Girard).
San Diego Bay and southward on coast of Lower California.
Engraulis delicatissimus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 154, and Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 335, San Diego.
263. *Anchoviella helleri* Hubbs.
Gulf of California.
Anchoviella helleri Hubbs, Proc. Biol. Soc., Wash., XXXIV, Mar. 31, 1921, 47, San Felipe Bay, gulf coast of Lower California.
264. *Anchoviella chærostoma* (Goode). *Hogmouth fry.*
Bermuda Islands; common in Hamilton Harbor.
Engraulis chærostomus Goode, Amer. Jour. Sci. Arts, August, 1874, 125, Bermuda.
265. *Anchoviella argyrophana* (Cuvier and Valenciennes).
Gulf Stream; Woods Hole, Mass.
Engraulis argyrophanus Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 49, equatorial Atlantic.
Stolephorus eurystole Swain and Meek, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 34, Woods Hole, Mass.
266. *Anchoviella curta* (Jordan and Gilbert).
Mazatlan, Mexico.
Stolephorus curtus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 343, Mazatlan, Mexico.
267. *Anchoviella mitchilli* (Cuvier and Valenciennes).
Cape Cod to Texas on sandy shores, entering rivers; common.
Engraulis mitchilli Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 50, New York; Carolina; Lake Ponchartrain.
Engraulis louisiana LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 51, Lake Ponchartrain, La.
Engraulis duodecim Cope, Trans. Amer. Phil. Soc., 1866, 405, Beasley's Point, N. J. (dorsal fin said to be entirely anterior to the long and deeply concave anal, which is not true in *S. mitchilli*; the description otherwise agrees).
268. *Anchoviella lucida* (Jordan and Gilbert). *Sardina.*
Mazatlan, Mexico.
Stolephorus lucidus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 341, Mazatlan.

269. *Anchoviella naso* (Gilbert and Pierson).
Panama; common.
Stolephorus naso Gilbert and Pierson, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2813, Panama.
270. *Anchoviella robertsi* (Jordan and Rutter).
West Indies.
Stolephorus robertsi Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 95, Jamaica.
271. *Anchoviella astilbe* (Jordan and Rutter).
West Indies.
Stolephorus astilbe Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 95, Jamaica.
272. *Anchoviella scofieldi* (Jordan and Culver).
Astillero at Mazatlan; not very abundant.
Stolephorus scofieldi Jordan and Culver, in Jordan, Fishes of Sinaloa, Proc. Calif. Acad. Sci., 3d Ser., V, 1895, 410, Mazatlan, Mexico.
273. *Anchoviella lyolepis* (Evermann and Marsh).
Porto Rico.
Stolephorus lyolepis Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900 (Dec. 29), 89, fig. 13, Culebra Island, Porto Rico.
274. *Anchoviella branchiomelas* (Eigenmann).
North coast of Colombia.
Stolephorus branchiomelas Eigenmann, Proc. Am. Phil. Soc., LVI, 1917, 682, mouth of Rio Dagua, Colombia.
275. *Anchoviella arenicola* (Meek and Hildebrand).
Panama.
Anchovia arenicola Meek and Hildebrand, Marine Fishes of Panama, in Field Mus. Nat. Hist., Zool., XV, 1923, 201, Pl. XIII, fig. 1, Taboga Island, Panama.
276. *Anchoviella scitula* (Fowler).
Coast of California; San Diego.
Anchovia scitula Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911, 211, fig. 2, San Diego, Calif.
277. *Anchoviella parva* (Meek and Hildebrand).
Colon.
Anchovia parva Meek and Hildebrand, Marine Fishes of Panama, in Field Mus. Nat. Hist., Zool., XV, 1923, 202, Pl. X, fig. 2, Porto Bello, Panama.
278. *Anchoviella elongata* (Meek and Hildebrand).
Canal Zone.
Anchovia elongata Meek and Hildebrand, Marine Fishes of Panama, in Field Mus. Nat. Hist., Zool., XV, 1923, 198, Pl. XII, fig. 2, Mindi Cut, Canal Zone.
279. *Anchoviella cayorum* (Fowler).
Florida Keys.
Anchovia chærostoma cayorum Fowler, Proc. Acad. Nat. Sci. Phila., LVII, 1906, 85, fig. 4, Hailer's Rock, Florida Keys.
280. *Anchoviella platyargyrea* (Fowler).
West Indies.
Anchovia platyargyrea Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911, 216, fig. 4, St. Martin's, West Indies.
281. *Anchoviella lepidentostole* (Fowler).
Coast of Surinam.
Anchovia lepidentostole Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911, 214, fig. 3, Surinam.
282. *Anchoviella guianensis* (Eigenmann).
Coast of Guiana.
Stolephorus guianensis Eigenmann, Mem. Carnegie Mus., V, 1912, 448, Pl. LXII, fig. 5, Bartica Rocks, British Guiana; misspelled *Stolephorus* in plate.

283. *Anchoviella trinitatis* (Fowler).
British West Indies.
Anchovia trinitatis Fowler, Proc. Acad. Nat. Sci. Phila., LXVII, 1915,
527, fig. 3, Port of Spain, Trinidad, British West Indies.
284. *Anchoviella filifera* (Fowler).
British West Indies.
Anchovia filifera Fowler, Proc. Acad. Nat. Sci. Phila., LXVII, 1915,
534, fig. 2, Port of Spain, Trinidad, British West Indies.
285. *Anchoviella abbotti* (Fowler).
British West Indies.
Anchovia abbotti Fowler, Proc. Acad. Nat. Sci. Phila., LXVII, 1915,
522, fig. 1, Port of Spain, Trinidad, British West Indies.
Subgenus ANCHOA Jordan and Evermann.
286. *Anchoviella compressa* (Girard).
Point Conception to Lower California.
Engraulis compressus Girard, Pac. R. R. Surv., X, 1858, 336, San Diego.
287. *Anchoviella spinifera* (Cuvier and Valenciennes).
Coast of Guiana; recorded from Panama by Steindachner, probably an
error.
Engraulis spinifer Cuvier and Valenciennes, Hist. Nat. Poiss., XXI,
1848, 39, Cayenne.
288. *Anchoviella rastralis* (Gilbert and Pierson).
Panama; abundant.
Stolephorus rastralis Gilbert and Pierson, in Jordan and Evermann,
Fishes North and Mid. Amer., 1898, 2811, Panama.
289. *Anchoviella mundeola* (Gilbert and Pierson).
Panama; abundant.
Stolephorus mundcolus Gilbert and Pierson, in Jordan and Evermann,
Fishes North and Mid. Amer., 1898, 2812, Panama.
290. *Anchoviella panamensis* (Steindachner).
Panama.
Engraulis panamensis Steindachner, Ichth. Beitr., IV, 1875, 39, Panama.
291. *Anchoviella eigenmannia* (Meek and Hildebrand).
Panama.
Anchovia eigenmannia Meek and Hildebrand, Marine Fishes of Panama,
in Field Mus. Nat. Hist., Zool., XV, 1923, 20, Taboga Island, Canal
Zone.
- Genus 116. ANCHOVIA Jordan and Evermann.
Anchovia Jordan and Evermann, Fishes North and Mid. Amer., 1896,
449, (*Engraulis macrolepidotus* Kner and Steindachner).
292. *Anchovia macrolepidota* (Kner and Steindachner). *Sardina bocona*.
Gulf of Mexico to Panama.
Engraulis macrolepidotus Kner and Steindachner, Abhandl. Bayer.
Akad. Wiss., X, 1864, 21, Pl. III, fig. 2, Rio Bayano, Panama.
293. *Anchovia clupeioides* (Swainson). *Hechudo*; *Grubber broadhead*.
Coast of Cuba and southward; common, ascending streams.
Engraulis clupeioides Swainson, Nat. Hist. Fish., II, 1839, 388, Pernam-
bucó.
Stolephorus surinamensis Bleeker, Nederl. Tijdschr. Dierk., 1866, 178,
Surinam.
Engraulis productus Poey, Repertorio, 1866, 380, Cuba.
- Genus 117. AMPLOVA Jordan and Seale.
Amplova Jordan and Seale, Copeia, No. 141, 1925, 31 (*Stolephorus
brevirostrum* Meek and Hildebrand; not *Engraulis brevirostris*,
Günther, also a species of *Amplova*).
294. *Amplova balboæ* Jordan and Seale.
Panama.
Amplova balboæ Jordan and Seale, Copeia, No. 141, Apr. 30, 1925,
31, substitute for *Stolephorus brevirostrum* Meek and Hildebrand.

Anchoria brevirostrum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, Pt. I, 198, Pl. XV, fig. 1; not *Engraulis brevirostris* Günther from Brazil, also a species of *Amplova*.

Genus 118. CETENGRAULIS Günther.

Cetengraulis Günther, Cat., VII, 1868, 383 (*Engraulis edentulus* Cuvier).

295. **Cetengraulis edentulus** (Cuvier). *Bocon*; *Tarpon fry*.
West Indies to Brazil; common in Cuba.
Sprat Sloane, Hist. Jamaica, II, 1727, 282, Jamaica; after Sloane.
Engraulis edentulus Cuvier, Règne Anim., ed. 2, II, 1829, 323, Jamaica.
Engraulis brevis Poey, Repertorio, I, 1866, 379, Cuba.
296. **Cetengraulis gilberti** (Evermann and Marsh).
Coast of Porto Rico.
Stolephorus gilberti Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 352, Palo Seco near San Juan, Porto Rico.
297. **Cetengraulis garmani** (Evermann and Marsh). *Porto Rican anchovy*.
Porto Rico.
Stolephorus garmani Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899, (Dec. 19), 352, Puerto Real, Porto Rico.
298. **Cetengraulis mysticetus** (Günther).
Pacific coast of tropical America.
Engraulis mysticetus Günther, Proc. Zool. Soc. Lond., 1866, 604, Panama.
Stolephorus opercularis Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 275, Punta San Felipe, Gulf of California.
299. **Cetengraulis engymen** Gilbert and Pierson.
Panama Bay.
Cetengraulis engymen Gilbert and Pierson, in Jordan and Evermann, Fishes North and Mid. Amer. 1898, 2815, Panama Bay.

Genus 119. PTERENGRAULIS Günther.

Pterengraulis Günther, Cat., VII, 1868, 398, (*Clupea atherinoides* L.).

300. **Pterengraulis atherinoides** (Linnæus).
Coast of Guiana and Brazil; ascending rivers.
Clupea atherinoides Linnæus, Syst. Nat., ed. XII, 1766, 523, Surinam.

Genus 120. LYCENGRAULIS Günther.

Lycengraulis Günther, Cat., VII, 1868, 399 (*Engraulis grossidens* Cuvier).

301. **Lycengraulis grossidens** (Cuvier).
Coast of Guiana and Brazil.
Engraulis grossidens Cuvier, in Agassiz, Spix, Pisc. Brasil., 1828, 50, Rio Janeiro.
Engraulis janeiro Agassiz, loc. cit., pl. 24, fig. 1, Rio Janeiro.
Engraulis dentex Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 28, Rio Janeiro.
302. **Lycengraulis poeyi** (Kner and Steindachner).
Rio Bayano, Panama.
Engraulis poeyi Kner and Steindachner, Abhandl. Bayer. Akad. Wiss., X, 1864, 23, with plate; Rio Bayano.

Family 46. ALEPOCEPHALIDÆ

Genus 121. ALEPOCEPHALUS Risso.

Alepocephalus Risso, Mém. Acad. Nat. Sci. Turin, XXV, 1820, 270 (*A. rostratus* Risso).

303. **Alepocephalus agassizii** Goode and Bean.
Gulf Stream.
Alepocephalus agassizii Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, 318, Gulf Stream.
304. **Alepocephalus productus** Gill.
Gulf Stream.
Alepocephalus productus Gill, Proc. U. S. Nat. Mus., VI, 1883, 256, Gulf Stream at Albatross station 2035 in 1,362 fathoms.

305. *Alepocephalus tenebrosus* Gilbert.
Santa Barbara Channel, California.
Alepocephalus tenebrosus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 545, Santa Barbara Channel.
306. *Alepocephalus asperifrons* Garman.
Off Panama in deep water.
Alepocephalus asperifrons Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 291, Pl. LIX, fig. 1, Panama.
307. *Alepocephalus convexifrons* Garman
Off Pacific coast of Mexico, in deep water.
Alepocephalus convexifrons Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 292, Pl. LIX, fig. 2; off Pacific coast of Mexico.
308. *Alepocephalus fundulus* Garman.
Pacific coast of Panama, in deep water.
Alepocephalus fundulus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 293, Pl. LVII, fig. 2; off Panama in deep water.
- Genus 122. MITCHILLINA Jordan and Evermann.
Mitchillina Jordan and Evermann, Fishes North and Mid. Amer., 1896, 453, (*Alepocephalus bairdii* Goode and Bean).
309. *Mitchillina bairdii* (Goode and Bean).
Grand Banks of Newfoundland.
Alepocephalus bairdii Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 55, Grand Banks of Newfoundland.
- Genus 123. BATHYTROCTES Günther.
Bathytroctes Günther, Ann. Mag. Nat. Hist., II, 5th ser., 1878, 249 (*B. microlepis* Günther).
310. *Bathytroctes stomias* Gilbert.
Coast of Oregon.
Bathytroctes stomias Gilbert, Proc. U. S. Nat. Mus., XII, 1890, 53, coast of Oregon in 877 fathoms, *Albatross* station 3074.
311. *Bathytroctes inspector* Garman.
Pacific coast of Panama, in deep water.
Bathytroctes inspector Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 288, Pl. M., fig. 1; Panama.
312. *Bathytroctes alveatus* Garman.
Pacific coast of Panama in deep water.
Bathytroctes alveatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, Pl. LVIII, fig. 1, 287; Panama.
313. *Bathytroctes alvifrons* Garman.
Pacific coast of Panama in deep water.
Bathytroctes alvifrons Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 286, Pl. LVIII, figs. 2, 2a; Panama.
- Genus 124. XENOGNATHUS Gilbert.
Xenognathus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 311, (*X. profundorum* Gilbert).
314. *Xenognathus profundorum* Gilbert.
Coast of California, in deep water, 1,350 to 2,182 fathoms.
Xenognathus profundorum Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 311, off Santa Catalina Island, California.
- Genus 125. NARCETES Alcock.
Narcetes Alcock, Ann. Mag. Nat. Hist., VI, 1890, 305 (*N. erimelas* Alcock).
315. *Narcetes stomias* (Gilbert).
Off Pacific coast of America, from Oregon to southern California in deep water.
Bathytroctes stomias Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 53, coast of Oregon in 877 fathoms, *Albatross* station 3074.
316. *Narcetes pluriserialis* Garman.
Pacific coast of Panama in deep water.
Narcetes pluriserialis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 289, Pl. LVII, fig. 3; Panama.

Genus 126. LEPTOCHILICHTHYS Garman.

Leptochilichthys Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 284
(*L. agassizii* Garman).

317. *Leptochilichthys agassizii* Garman.

Pacific coast of Panama, in deep water.

Leptochilichthys agassizii Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 286, Pl. LVIII, fig. 3; off Panama.

Genus 127. PLATYTROCTES Günther.

Platytrectes Günther, Ann. Mag. Nat. Hist., II, 1878, 249 (*P. apus* Günther).

318. *Platytrectes apus* Günther.

Mid-Atlantic and the Arabian Sea.

Platytrectes apus Günther, Ann. Mag. Nat. Hist., II, 1878, 249, Mid-Atlantic.

Genus 128. TALISMANIA Goode and Bean.

Talismania Goode and Bean, Oceanic Ichth., 1895, 41 (*Bathytroctes homopterus* Vaillant).

319. *Talismania antillarum* Goode and Bean.

Caribbean Sea.

Talismania antillarum Goode and Bean, Oceanic Ichth., 1895, 44, fig. 49, Albatross station 2394, in Caribbean Sea, lat. 28° 38' 30" N., long. 87° 2' W., 420 fathoms.

320. *Talismania æquatoris* Goode and Bean.

Coast of Ecuador.

Talismania æquatoris Goode and Bean, Oceanic Ichth., 1895, 44, fig. 50, off coast of Ecuador.

Genus 129. CONOCARA Goode and Bean.

Conocara Goode and Bean, Oceanic Ichth., 1895, 39 (*C. macdonaldi* Goode and Bean).

321. *Conocara macdonaldi* Goode and Bean.

Gulf of Mexico.

Conocara macdonaldi Goode and Bean, Oceanic Ichth., 1895, 39, fig. 48, Gulf of Mexico.

322. *Conocara macroptera* (Vaillant).

Deep seas, coast of Morocco to Soudan, banc d'Arguin, and from the Canaries. A specimen 8 inches in length was obtained by the Albatross at station 2751, lat. 16° 57' N., long. 63° 12' W., in 68 fathoms.

Alepocephalus macropterus Vaillant, Expéd. Sci. Travailleur et Talisman, Poissons, 1888, 150, Pl. XI, figs. 2a, 2b, 2c, coast of Morocco, Soudan, and Canaries.

Genus 130. BAJACALIFORNIA Townsend and Nichols.

Bajacalifornia Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII, 1925, 8 (*B. burragei* Townsend and Nichols).

323. *Bajacalifornia burragei* Townsend and Nichols.

West coast of Lower California in deep water.

Bajacalifornia burragei Townsend and Nichols, Bull. Am. Mus. Nat. Hist., LII, 1925, 8, fig. 3, off Todos Santos Bay, Lower California, in 590 fathoms.

Genus 131. XENODERMICHTHYS Günther.

Xenodermichthys Günther, Ann. Mag. Nat. Hist., II, ser. 5, 1878, 250 (*X. nodulosus* Günther).

Aleposomus Gill, Amer. Nat., XVIII, 1884, 433 (*A. copei* Gill).

324. *Xenodermichthys copei* (Gill).

Gulf Stream.

Aleposomus copei Gill, Amer. Nat., XVIII, 1884, 433, Gulf Stream, lat. 37° 12' 20" N., long. 69° 39' W.

Genus 132. ERICARA Gill and Townsend.

Ericara Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232 (*E. salmonea* Gill and Townsend).

325. *Ericara salmonea* Gill and Townsend.

Bering Sea, southwest of Pribilof Islands.

Ericara salmona Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232, Bering Sea.Genus 133. *ATOPICHTHYS* Garman.*Atopichthys*²¹ Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 325 (*A. esunculus* Garman).326. *Atopichthys esunculus* Garman.

Pacific coast of Mexico.

Atopichthys esunculus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 327, Pl. LXV, figs. 2, 2a; off Acapulco, Mexico.

Suborder SALMONOIDEI

Family 47. SALMONIDÆ. Salmon; Trout

Genus 134. *ONCORHYNCHUS* Suckley. *Pacific salmon.**Oncorhynchus* Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 313 (*Salmo scouleri* Richardson=*Salmo gorbuscha* Walbaum).*Hypsifario* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Salmo kennerlyi* Gill).Subgenus. *ONCORHYNCHUS* Suckley.327. *Oncorhynchus gorbuscha* (Walbaum). *Humpback salmon; Pink salmon, Haddo; Holia; Gorbuscha.*

Pacific coast and rivers of North America and Asia, from California northward.

Salmo gorbuscha Walbaum, Artedi Pisc. 1792, 69, Kamchatka; after Gorbuscha of Pennant and Krasheninnikof.*Salmo gibber* Bloch and Schneider, Syst. Ichth., 1801, 409, Kamchatka; after Krasheninnikof.*Salmo proteus* Pallas, Zoogr. Rosso-Asiat., III, 1811, 376, Bering Sea.*Salmo scouleri* Richardson, Fauna Bor.-Amer., III, 1836, 158; Observatory Inlet.*Salmo tshawytschiformis* Smitt, I Riksmuseum Befintlige Salmonider, 1886, 161; Port Clarence.328. *Oncorhynchus keta* (Walbaum). *Dog salmon; Hayko; Le kai salmon; Chum; Calico salmon.*

Pacific coast of America, from San Francisco to Kamchatka.

Salmo keta vel kayko Walbaum, Artedi Pisc., 1792, 72, rivers of Kamchatka; after *keta* or *kayko* of Pennant and Krasheninnikof.*Salmo lagocephalus* Pallas, Zoogr. Rosso-Asiat., III, 1811, 372; Bering Sea.? *Salmo japonicus* Pallas, loc. cit., 382, Curile Islands; Amur River.*Salmo dermatinus* Richardson, Voy. Herald, Zool., 1854, 167; Yukon River.*Salmo consuetus* Richardson, loc. cit., 168; Yukon River.*Salmo canis* Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1858, 9, and Monogr. Salmo, 101, 1861 (1874); Puget Sound.329. *Oncorhynchus kisutch* (Walbaum). *Silver salmon; Kisutch; Medium red salmon; Skowitz; Hoopid salmon; Coho salmon; Bielaya ryba; Quisutch; Tschaviche.*

From San Francisco northward, especially in Puget Sound and the Alaskan fjords; south on the Asiatic coast to Japan.

? *Salmo milkschilch* Walbaum, Artedi Pisc., 1792, 70, Bering Sea; after *milkschutsch* or *miltschilch* of Pennant and Krasheninnikof; probably the young of *kisutch*.*Salmo kisutch* Walbaum, Artedi Pisc., 1792, 70, rivers and lakes of Kamchatka; after the *kisutch* of Pennant.? *Salmo striatus* Bloch and Schneider, Syst. Ichth., 1801, 407, Kamchatka; after *milkschilch* of Krasheninnikof.

²¹ This name is given not as a genus, but rather as a group name of larval fishes related to the eels or to the Alepocephalidæ, commonly known as *Leptocephalus*, but *Leptocephalus morrisi* (type of *Leptocephalus*) is now known to be a young conger. A number of these larvae (*A. sicarius*, *cinctus*, *dentatus*, *falcidens*, *acus*, *opichthys*, *cingulus*, *lychnus*, *obtusius*, and *longidens*) are described by Garman (Deep Sea Fishes), but they need not be specifically recognized here. The species called *Atopichthys esunculus* Garman, perhaps belonging to the Alepocephalidæ, has been designated as the type of this group.

Salmo kisutch Bloch and Schneider, loc. cit., 407, Kamchatka; after Pennant.

Salmo sanguinolentus Pallas, Zoogr. Rosso-Asiat., III, 1811, 379, Bering Sea.

Salmo tsuppitch Richardson, Fauna Bor.-Amer., III, 1836, 224, Columbia River.

Subgenus HYPISIFARIO Gill.

330. *Oncorhynchus nerka* (Walbaum). *Blueback salmon*; *Redfish*; *Fraser River salmon*; *Nerka*; *Sau-qui salmon*; *Sockeye or Sukkegh salmon*; *Krashnaya ryba*.

Klamath River and Rogue River to northern Alaska, Kamchatka, and Japan.

Salmo nerka Walbaum, Artedi Pisc., 1792, 71; after the *nerka* of Pennant, *narka* of Krashennnikof; rivers and seas of Kamchatka.

Salmo lycaodon Pallas, Zoogr. Rosso-Asiat., III, 1811, 370, Okhotsk Sea, Kamchatka.

Salmo paucidens Richardson, Fauna Bor.-Amer., III, 1836, 222, Columbia River.

Salmo taplisma Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 365, Kamchatka; on a drawing.

Salmo arabatch Cuvier and Valenciennes, loc. cit., Kamchatka; on a drawing.

Salmo melampterus Cuvier and Valenciennes, loc. cit., Kamchatka; on a drawing.

Fario aurora Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218; Girard, Pac. R. R. Surv., X, 1858, 308, pl. 68, Astoria, Oreg.

331. *Oncorhynchus tshawytscha* (Walbaum). *Chinook salmon*; *Tchariche*; *King salmon*; *Columbia River salmon*; *Spring salmon*; *Sacramento River salmon*; *Tyee salmon*; *Tschawytscha*; *Quinnat salmon*.

Alaska, Oregon, and California; southward to Monterey, and to northern China.

Salmo tshawytscha Walbaum, Artedi Pisc., 1792, 71, rivers of Kamchatka; after the *tshawytscha* of Krashennnikof, Descr. Kamchatka, 1768, 178, and the *tshawytscha* of Pennant, 1792.

Salmo orientalis Pallas, Zoogr. Rosso-Asiat., III, 1811, 367, Kamchatka.

Salmo quinnat Richardson, Fauna Bor.-Amer., III, 1836, 219, Columbia River; and of many writers.

Fario argyreus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218, Cape Flattery; Fort Steilacoom.

Salmo confluentus Suckley, Ann. Lyc. Nat. Hist. N. Y., December, 1858, and Pacific R. R. Surv., XII, pt. 2, 1860, 334, Puyallup River near Fort Steilacoom.

Salmo cooperi Suckley, Notices New Spec. N. Amer. Salmon, New York, June, 1861, Okanogan River.

Salmo warreni Suckley, loc. cit., June, 1861, and loc. cit., 1861, 117 (1874) Fraser River, British Columbia.

Salmo richardi Suckley, loc. cit., June, 1861, and loc. cit., 1861, 117, Fraser and Skagit Rivers.

332. *Oncorhynchus kennerlyi* (Suckley).

Lakes of Oregon, Washington, Idaho, British Columbia, Alaska, and Hokkaido. A dwarf landlocked form. Probably several forms should be recognized.

Salmo kennerlyi Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 307, Lake Chiloweyuck, Washington.

Genus 135. SALMO Linnæus. Salmon and trout.

Salmo Linnæus, Syst. Nat., ed. X, 1758, 308 (*S. salar* Linnæus); after Artedi.

Trutta Linnæus, loc. cit., 308 (*trutta*, etc.: "*Trutta corpore variegato*").

Trutta Geoffroy, Descr. de 719 Plantes, etc., 1767, 719 (*Salmo trutta* Linnæus).

Fario Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 277 (*Fario argenteus* = *Salmo fario* L.).

Salar Cuvier and Valenciennes, loc. cit., 314 (*Salmo ansonii* = *Salmo fario*).

Trutta Siebold, Süswasserfische Mitteleuropas, 1863, 280 (*Salmo trutta* L.).

Subgenus SALMO Linnæus.

333. *Salmo salar* Linnæus. *Common Atlantic salmon*.
North Atlantic; ascending all suitable rivers in northern Europe and region north of Cape Cod; formerly abundant in the Hudson and occasional in the Delaware, its northern limit being about lat. 50° N., and southwest Greenland.
Salmo salar Linnæus, Syst. Nat., ed. X, 1758, 308, seas of Europe.
Salmo mas Walbaum, Artdi Pisc., 1792, 58, Germany; based on "Der Hakelachs" of Bloch; probably not intended as a binomial name.
Salmo gloveri Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 86, Union River, Me.
334. *Salmo sebago* Girard. *Landlocked salmon; Sebago salmon*.
Lakes of Maine, New Hampshire, New Brunswick, and Nova Scotia.
Salmo sebago Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 380, Sebago Lake, Me.
335. *Salmo ouananiche* McCarthy. *Ouananiche; Winninish*.
Lake St. John, Saguenay River, and northward.
Salmo salar ouananiche Eugene McCarthy, Forest and Stream, March 10, 1894, 206, and in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 487, Saguenay River, Canada.
336. *Salmo mykiss* Walbaum. *Mykiss; Somka; Kamchatka salmon trout; Muikichi*.
Kamchatka; probably not occurring in America.
Mykiss Pennant, Arctic Zool., 1792, 126, Kamchatka; after Krasheninikof, etc.
Salmo mykiss Walbaum, Artdi Pisc., 1792, 59, Kamchatka; based on *mykiss* of Pennant.
Salmo penshinensis Pallas, Zoogr. Rosso-Asiat., III, 1811, Gulf of Penshin.
Salmo purpuratus Pallas, loc. cit., 374, Bering Sea.
337. *Salmo regalis* Snyder. *Royal silver trout*.
Lake Tahoe.
Salmo regalis Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (Dec. 31), 26, Lake Tahoe near Brockway, Nev.
- Subgenus TRUTTA Linnæus.
338. *Salmo clarkii* Richardson. *Columbia River trout; Cut-throat trout*.
Coastwise streams, from Puget Sound south to Elk River, Humboldt County, California.
Salmo clarkii Richardson, Fauna Bor.-Amer., III, 1836, 225, Cathlapootl River.
Fario stellatus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 219, Fort Steilacoom, Shoalwater Bay.
Salmo brevicauda Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 308, Puget Sound.
339. *Salmo lewisi* (Girard). *Yellowstone trout; Cut-throat trout*.
Snake River basin above the Shoshone Falls, through Two-Ocean Pass to the headwaters of the Yellowstone and other affluents of the upper Missouri; Yellowstone Lake.
Salar lewisi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 219, Falls of Missouri River.
Salmo carinatus Cope, Hayden's Geol. Surv. Mont., 1871 (1872); locality unknown, probably Yellowstone River.
340. *Salmo bouvieri* (Bendire). *Waha Lake trout*.
Waha Lake, Washington.
Salmo purpuratus bowieri Bendire, in Jordan and Gilbert, Synopsis, 1883, 315, Waha Lake, Wash.
341. *Salmo utah* Suckley. *Cut-throat trout of Utah Lake*.
Lakes and streams west of the Wasatch range, especially in Bear, Provo, Jordan, and Sevier Rivers and in Utah Lake.
Salmo utah Suckley, Monogr. Salmo, 1861 (1874), 136, Utah Lake; pale specimens from the lake.

342. *Salmo gibbsii* Suckley.
Middle Columbia River basin.
Fario tsuppitch Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218,
Fort Dalles, Oreg.; not of Richardson.
Salmo gibbsii Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1858, 1, Fort
Dalles; also in the Yakima, John Day, and Boise Rivers; also in the
Columbia at The Dalles, Oreg.
343. *Salmo henshawi* Gill and Jordan. *Lake Tahoe trout*; *Silver trout*; *Truckee
trout*; *Pyramid Lake trout*.
Basin of the post-tertiary Lake Lahontan; Lake Tahoe, Pyramid Lake,
Wenemucca Lake, Webber Lake, Donner Lake, Independence Lake,
Truckee River, Humboldt River, Carson River, and most streams of
the eastern slope of the Sierra Nevada; also the headwaters of
Feather River, west of the Sierra Nevada; probably introduced from
Nevada.
Salmo henshawi Gill and Jordan, in Jordan, Man. Vert., ed. 2, 1878,
258, Lake Tahoe.
344. *Salmo tahoensis* (Jordan and Evermann). *Great trout of Lake Tahoe*.
Deep waters of Lake Tahoe.
Salmo clarkii tahoensis Jordan and Evermann, Fishes North and Mid.
Amer., 1898, 2870, Lake Tahoe.
345. *Salmo jordani* (Meek). *Jordan's trout*; *Spotted trout of Lake Southerland*.
Lake Southerland, west of Puget Sound.
Salmo clarkii jordani Meek, Publ., Field Col. Mus., Zool., I, 1897
(1899), 229, Lake Southerland, Wash.
346. *Salmo declivifrons* (Meek). *Salmon trout of Lake Southerland*.
Lake Southerland, west of Puget Sound.
Salmo clarkii declivifrons Meek, Field Col. Mus., Zool., I, 1899, 230,
Lake Southerland, Wash.
347. *Salmo virginalis* (Girard). *Rio Grande trout*.
Upper Rio Grande and southward into the mountains of Chihuahua.
Salar virginalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 220,
Utah Creek and at Sangre de Cristo Pass, Colo.
Salmo spilurus Cope, Hayden's Geol. Surv. Mont., 1871 (1872), 470;
Sangre de Cristo Pass, Colo.
348. *Salmo pleuriticus* Cope. *Colorado River trout*.
Colorado River basin.
Salmo pleuriticus Cope, Hayden's Geol. Surv. Mont., 1871 (1872),
471; headwaters of Green River, Wyo.
349. *Salmo stomias* Cope. *Greenback trout*.
Headwaters of Arkansas and Platte Rivers.
Salmo stomias Cope, Hayden's Geol. Surv. Wyo., 1870 (1871), 433;
South Platte River; locality unknown.
350. *Salmo macdonaldi* (Jordan and Evermann). *Yellowfin trout*.
Headwaters of the Arkansas River.
Salmo mykiss macdonaldi Jordan and Evermann, Proc. U. S. Nat.
Mus., XII, 1889 (January 20, 1890), 453, Twin Lakes, Colo.
351. *Salmo crescentis* (Jordan and Beardslee). *Bluetail trout of Lake Crescent*.
Crescent Lake, Clallam County, Washington.
Salmo gairdneri crescentis Jordan and Beardslee, Proc. Calif. Acad.
Sci., 2d ser., VI, 1896, 207, pl. 22, Crescent Lake, Clallam County,
Wash.
352. *Salmo bathœceter* Meek. *Long-headed trout of Crescent Lake*.
Deep water of Crescent Lake, Washington.
Salmo bathœceter Meek, Field Col. Mus., Zool., I, 1899, 227, Crescent
Lake, Wash.
353. *Salmo beardslei* (Jordan and Seale). *Speckled trout of Lake Crescent*.
Crescent Lake, Clallam County, Wash.
Salmo gairdneri beardslei Jordan and Seale, Proc. Calif. Acad. Sci.,
2d Ser., VI, 1896, 209, pl. 23, Crescent Lake, Clallam County, Wash.

354. *Salmo eremogenes* Evermann and Nichols.
Streams of central Wash.
Salmo eremogenes Evermann and Nichols, Proc. Biol. Soc. Wash., XXII, June 25, 1909, 93, pl. 2, Crab Creek at Rocky Ford near Ritzville, Wash.
355. *Salmo smaragdus* Snyder. *Emerald trout*.
Truckee Basin, Nev.
Salmo smaragdus Snyder, Bull. U. S. Bur. Fish., XXXV, 1915-16 (Sept. 28, 1917), 80, fig. 9, Pyramid Lake, Nev.
356. *Salmo aquilarum* Snyder. *Eagle Lake trout*.
Lakes of northeastern California.
Salmo aquilarum Snyder, Bull. U. S. Bur. Fish., XXXV, 1915-16 (Sept. 28, 1917), 77, fig. 7, Eagle Lake near mouth of Pine Creek, Modoc Co., Calif.
357. *Salmo irideus* Gibbons. *Rainbow trout*; *Coast range trout*.
Coastwise mountain streams of the Coast Ranges from the northern coast of California southward to San Diego County, Calif.; entering the sea where it grows to 6 or 10 pounds, returning as a steelhead.
Salmo iridia Gibbons, Proc. Calif. Acad. Nat. Sci., I, 1855, 35, San Leandro Creek, Alameda County, Calif.
Salmo rivularis Ayres, loc. cit., 42, Martinez, Calif.; steelhead form.
358. *Salmo gairdnerii* Richardson. *Brook trout of western Oregon to southern Alaska*; *Steelhead*; *Salmon trout*; *Kamloops trout*; *Stit-tse*.
Southern Alaska and Puget Sound to southern Oregon; in streams of the Coast Ranges and the Cascades, descending to the sea as a "steelhead"; perhaps not separable from *Salmo irideus*. Kamloops Lake, Okanogan Lake, and other lakes tributary to Frazer River or to the upper Columbia.
Salmo gairdnerii Richardson, Fauna Bor.-Amer., III, 1836, 221, Columbia River at Fort Vancouver.
Salmo masoni Suckley, Pac. R. R. Surv., XII, part 2, 1860, 345, Cathlamet River.
Salmo truncatus Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1862, 3, New Dungeness, straits of Fuca.
Oncorhynchus kamloops Jordan, Forest and Stream, XXXIX, No. 19, November 10, 1892, 405, Kamloops Lake, British Columbia.
359. *Salmo shasta* (Jordan). *McCloud River rainbow trout*; *Rainbow trout of fish culturists*.
Streams of the Sierra Nevadas from Mount Shasta southward; known from McCloud River; the limits of its range not well known. Introduced into the Truckee River and many eastern streams, as well as in Europe and New Zealand.
Salmo irideus or *rainbow trout* of most writers and especially of fish-culturists; not *Salmo irideus* Gibbons, which is based on coastwise specimens.
Salmo gairdneri shasta Jordan, Thirteenth Biennial Rept. Calif. Fish Com., 1894, 142, with plate; McCloud River at Baird, Shasta County, Calif.
360. *Salmo stonei* (Jordan). *Nissuee trout*; *No-shee trout*.
McCloud River and upper Sacramento River.
Salmo gairdneri stonei Jordan, Thirteenth Biennial Rept. Calif. Fish Com., 1894, 142, with plate; McCloud River at Baird, Calif.; perhaps a variant of *Salmo shasta*.
361. *Salmo newberrii* Girard.
Klamath River.
Fario or *Salmo newberrii* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 225; new name for fish misidentified and described as "*Salmo gairdneri* Richardson" in Pacific R. R. Survey, X, 1859, 313, Pl. LXXI, figs. 1-4, Klamath River, Oreg.
362. *Salmo gilberti* (Jordan). *Kern River trout*.
Kern River, Calif.
Salmo gairdneri gilberti Jordan, Thirteenth Biennial Rept. Calif. Fish Com., 1894, 143, with plate; Kern River at Soda Springs, Calif.

363. *Salmo rosei* Jordan and McGregor. *Rose trout*.
Certain headwaters of Kern River, Calif.
Salmo rosei Jordan, Proc. Acad. Nat. Sci. Phila., LXXVI, 1924, 19,
Pl. II, Lake Culver, Calif., and neighboring lakes.
364. *Salmo agua-bonita* (Jordan). *Golden trout of south fork of Kern River*.
South fork of Kern River, Calif.; introduced into Cottonwood Lakes,
east of Mount Whitney.
Salmo mykiss agua-bonita Jordan, Proc. U. S. Nat. Mus., XV, 1892,
481, "Volcano or Whitney Creek, California," by error; the original
type came from the Cottonwood Lakes on the east side of Mount
Whitney, into which the species had been introduced from the south
fork of Kern River. This species does not occur in Volcano Creek
nor in Whitney Creek.
365. *Salmo whitei* Evermann. *Golden trout of western tributaries of Kern
River; Stewart White trout*.
Western tributaries of Kern River, Calif.
Salmo whitei Evermann, Bull. U. S. Bur. Fish., XXV, 1905 (May 19,
1906), 20, Pl. XVI; south fork of Kaweah River, Calif., into which
the species had been transplanted from Coyote Creek, a western
tributary of Kern River.
366. *Salmo roosevelti* Evermann. *Golden trout of Volcano Creek; Roosevelt
trout; Volcano Creek trout*.
Native only to Volcano Creek, an eastern tributary of Kern River,
Calif.
Salmo roosevelti Evermann, Bull. U. S. Bur. Fish., XXV, 1905 (May 19,
1906), 26, Pl. I, Volcano Creek, Kern River Basin, Calif.
367. *Salmo evermanni* Jordan and Grinnell. *San Bernardino trout; Evermann's
trout*.
Headwaters of Santa Ana River, Calif., above the falls.
Salmo evermanni Jordan and Grinnell, Proc. Biol. Soc. Wash., XXI,
1908, 31, Pl. II, south fork of the Santa Ana River, Calif., at 8,200
feet altitude.
368. *Salmo nelsoni* Evermann. *Lower California trout; Nelson's trout*.
Mountain streams of northern Lower California.
Salmo nelsoni Evermann, Proc. Biol. Soc. Wash., XXI, 1908, 26, Pl. I,
San Ramon River, San Pedro Martir Mountains, Lower California.
- Genus 136. CRISTIVOMER Gill and Jordan. *Great Lakes trout*.
Cristivomer Gill and Jordan, in Jordan, Man. Vert., ed. 2, 1878, 356.
(*Salmo namaycush* Walbaum).
369. *Cristivomer namaycush* (Walbaum). *Great Lakes trout; Mackinaw
trout; Longue (Vermont); Togue (Maine); Namaycush; Masamacush*.
Great Lakes region and lakes of northern New York, New Hampshire,
and Maine; headwaters of Columbia and Fraser Rivers; streams of
Vancouver Island, and north to the Arctic Circle.
Namaycush salmon Pennant, Arctic Zool., 1792, 191, Hudson Bay.
Salmo namaycush Walbaum, Arcted. Pisc., 1792, 68, Hudson Bay; based
on the *Namaycush salmon* of Pennant.
Salmo pallidus Rafinesque, Amer. Month. Mag., December, 1817,
120, Lake Champlain.
Salmo amethystinus Mitchell, Jour. Acad. Nat. Sci. Phila., I, 1818, 410,
Sault Ste. Marie.
Salmo confinis DeKay, N. Y. Fauna: Fishes, 1842, 238, Louis Lake,
Hamilton County, N. Y.; Silver Lake, Pa.
Salmo symmetricus Prescott, Am. Jour. Sci. Arts, XI, 1851, 340, Lake
Winnepiseogee, N. H.
Salmo toma Hamlin, The Togue, in Holmes, 2d Ann. Rept., Maine
Fish Com., 1862, 109; lakes of Maine.
Salmo adirondacus Norris, Amer. Angler's Book, 1865, 255; Adirondack
lakes.



370. Cristivomer siscowet (Agassiz). *Siscowet*.

Lake Superior, in deep water, where it feeds on the fat ciscoes; a deep-water variant of *C. namaycush*.

Salmo siscowet Agassiz, Lake Superior, 1850, 333, Lake Superior.

Salmo siskawitz Agassiz, in Herbert Frank Forester's Fish and Fishing, 1850, 112, with plate; Lake Superior.

Salmo ursinus Barnston, Rept. Fish. Canada, Lake Superior; reference uncertain.

Genus 137. SALVELINUS Richardson. *Charrs*.

Salvelini Nilsson, Prodr. Ichth. Scand., 1832, 7 (*alpinus*); group name. *Salvelinus* Richardson, Fauna Bor.-Amer., III, 1836, 169 (*Salmo salvelinus* L.); after Nilsson.

Baione DeKay, N. Y. Fauna: Fishes, 1842, 244 (*B. fontinalis* DeKay).

Umbla Rapp, Fische Bodensees, 1854, 32 (*Salmo umbla*=*alpinus* L.).

371. Salvelinus fontinalis (Mitchill). *Brook trout*; *Speckled trout*; *Eastern brook trout*.

Maine to the Saskatchewan and northward to Labrador, southward in the Alleghenies to headwaters of the Savannah, Chattahoochee, Catawba, and French Broad Rivers; largely introduced into western streams but not native west of the Mississippi except in Minnesota and Iowa. Some unnamed variants included.

Salmo fontinalis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 435, near New York City.

Salmo alleghaniensis Rafinesque, Ichth. Ohiensis, 1820, 44, brooks falling into the Allegheny and Monongahela Rivers.

Salmo nigrescens Rafinesque, Ichth. Ohiensis, 1820, 45, near the Laurel Hills, Pa.

Salmo canadensis Hamilton Smith, in Griffith's Cuvier, X, 1834, 474, Canada; dots blood red, each "in white circular spot."

Salmo hudsonicus Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 310, Hudson Bay and tributaries; Labrador; Newfoundland.

372. Salvelinus agassizii Garman. *Dublin Pond trout*.

Dublin Pond, N. H.

Salmo agassizii Garman, Nineteenth Rept., Mass. Fish Com., 1885, 20, Dublin Pond (Lake Monadnock), N. H.; Center Pond, N. H.

373. Salvelinus timagamensi Henn and Rinkensbach. *Aurora trout*.

White Pine Lake, Clearwater Lake, Timigami region, Ontario, of the St. Lawrence Basin.

Salvelinus timagamensis Henn and Rinkensbach, Ann. Carnegie Mus., XVI, 1925, 131, figs. 1, 2, and 3; White Pine Lake.

374. Salvelinus aureolus Bean. *Sunapee trout*; *American saibling*; *Golden trout of Sunapee Lake*.

Sunapee Lake, N. H.; Dan Hole Pond, Carroll County, N. H., tributary to Saco River; and Floods Pond, Otis, Me., tributary to Union River; also in Averill Pond, Vt.

Salvelinus aureolus Bean, Proc. U. S. Nat. Mus., X, 1887, 628, Sunapee Lake, N. H.

375. Salvelinus rossii (Richardson). *Ross's arctic salmon*.

Lakes of Greenland and Boothia Felix.

?*Salmo hearnei* Richardson, Franklin's First Voy. 1823, 706, and in Fauna Bor.-Amer., III, 1836, 167, Bloody Fall, Coppermine River, Lat. 67°; not certainly recognizable, description imperfect.

Salmo rossii Richardson, App., Ross's Voy., LVI, 1835; and in Fauna Bor.-Amer., III, 1836, 163, Regent's Inlet, Boothia Felix.

Salmo alipes Richardson, loc. cit., LVII, 1835, and in Fauna Bor.-Amer., III, 1836, 169, Lakes in Regent's Inlet, Boothia Felix.

Salmo nitidus Richardson, loc. cit., LVII, 1835, and in Fauna Bor.-Amer., 1836, 171; Lake of Boothia Felix.

376. Salvelinus stagnalis (Fabricius). *Greenland charr*.

Waters of Greenland, Boothia, and neighboring regions.

Salmo stagnalis Fabricius, Fauna Grœnlandica, 1780, 175; Alpine ponds of Greenland; not migratory.

Salmo rivalis Fabricius, loc. cit., 176, Alpine brooks of Greenland; not entering the sea.

Salmo immaculatus H. R. Storer, Jour. Bost. Soc. Nat. Hist., VI, 1850, 364, lower St. Lawrence; Canadian "salmon trout." Name preoccupied. Sea-run forms.

- 377. *Salvelinus naresi* (Günther).** *Arctic charr.*
Lakes of Arctic America, Discovery Bay, and Cumberland Gulf.
Salmo naresi Günther, Proc. Zool. Soc. Lond., 1877, 476, plate, freshwater lakes near Discovery Bay.
- 378. *Salvelinus arcturus* (Günther).** *Arctic charr.*
Victoria Lake and Fløeberg Beaches of Arctic America, latitude 82° 34'.
Salmo arcturus Günther, Proc. Zool. Soc. Lond., 1877, 294, Pl. XXXII, Victoria Lake, Fløeberg Beach.
- 379. *Salvelinus malma* (Walbaum).** *Malma trout.*
Waters of Kamchatka and Alaska, everywhere abundant; descending to the sea; apparently intergrading southward with *Salvelinus spectabilis*.
Salmo malma Walbaum, Artedi Pisc., 1792, 66, Kamchatka; based on *Malma* of Pennant.
Salmo curilus Pallas, Zoogr. Rosso-Asiat., III, 1811, 251, Curile Islands.
Salmo callaris Pallas, loc. cit., 353, Bering Sea.
Salmo lævigatus Pallas, loc. cit., 385, Curile Islands.
Salmo nummifer Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 365, Kamchatka; on a drawing by Mertens.
Salmo erythrorhynchus Cuvier and Valenciennes, loc. cit., 367, Kamchatka.
Salmo tudes Cope, Proc. Amer. Phil. Soc. Phila., XIII, 1873, 24, Captains Harbor, Unalaska.
Salmo pluvius Hilgendorf, Mitth., Deutsch. Ges. Ostasiens, XI, 1876, 25; clear streams throughout Japan.
- 380. *Salvelinus malma spectabilis* (Girard).** *Dolly Varden trout; Oregon charr; Bull trout; Red-spotted trout; Golet.*
Streams west of the Cascade Range, from the upper Sacramento to Montana and Alaska; in the Columbia basin as far up as Montana and Idaho.
Salmo spectabilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 218; Fort Dalles, Oreg.
Salmo bairdii Suckley, loc. cit., 309, tributary of Flathead River, Mont.
Salmo parkei Suckley, Ann. Lyc. Nat. Hist. N. Y., VII, 1861, 309, Kootenay River.
Salmo campbelli Suckley, loc. cit., 313, Fort Dalles, Oreg.; substitute for *spectabilis*, preoccupied in *Fario*, not in *Salmo* or *Salvelinus*.
Salmo lordii Günther, Cat., VI, 1866, 148, Skagit River; dwarf specimens.
- 381. *Salvelinus oquassa* (Girard).** *Oquassa trout; Blueback trout; Quasky.*
Rangeley Lakes, western Maine.
Salmo oquassa Girard, Proc. Bost. Soc. Nat. Hist., IV, 1854, 262, Oquassa or Oquossoc Lake, Me.
- 382. *Salvelinus marstoni* (Garman).** *Lac de Marbre trout; Marston trout.*
Salmo marstoni Garman, Science, July 14, 1893, Lac de Marbre, Ottawa County, Quebec.

Family 48. COREGONIDÆ. Whitefishes

Genus 138. STENODUS Richardson. *Inconnu.*

Stenodus Richardson, in Back's Narrative Arctic Land Exped., back append., 1836, 521 (*Salmo mackenzii* Richardson).

383. *Stenodus mackenzii* (Richardson). *Inconnu.*

Delta of MacKenzie River.

Salmo mackenzii Richardson, Franklin's Jour., 1823, 707, MacKenzie River.

Genus 139. LEUCICHTHYS Dybowski. *Lake herrings and ciscoes.*

Argyrosomus Agassiz, Lake Superior, 1850, 330 ("*clupeiformis*" of DeKay, not of Mitchill=*Salmo harengus* Rich); not of M. de la Pylaie, which is *Sciæna aquila* Cuvier.

Leucichthys Dybowski, Fische Baikal-Wassersysteme, Verk. KK. Zool.-Bot. Gesell. Wien, Bd. XXIV, 1874, 300 (*Salmo omul* Pallas).
Allosomus Jordan, Man. Vert., ed. 2, 1878, 361 (*Coregonus tullibee* Richardson).

Thrissomimus Gill, in Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 3 (*Coregonus artedi* LeSueur).
Cisco Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 3 (*Argyrosomus nigripinnis* Gill).

Subgenus **THRISOMIMUS** Gill.

384. *Leucichthys harengus* (Richardson). *Saginaw Bay herring*; *Georgian Bay herring*.
 Shallow bays of Lakes Huron and Michigan; Georgian Bay, Saginaw Bay, Green Bay, etc.
Salmo (*Coregonus*) *harengus* Richardson, Fauna Bor.-Amer., III, 1836, 210, Pl. XC, fig. 2; Georgian Bay at Penetanguishene, Ontario.
Coregonus clupeiformis Agassiz, Lake Superior, 1850, 339, the Pic; Shallow Bays, Michipicoten Island; not *clupeiformis* of Mitchell.
Coregonus albus Agassiz, loc. cit., p. 342, the Pic; not of LeSueur.
385. *Leucichthys osmeriformis* (Smith). *Seneca Lake herring*; *Seneca Lake smelt*.
 Lakes of central New York, tributary to Lake Ontario.
Coregonus hoyi Bean, Proc. U. S. Nat. Mus., V, 1882, 658; not of Gill.
Coregonus osmeriformis Smith, Bull. U. S. Fish. Com., XIV, 1894, Pl. I, II, Seneca Lake, Skaneateles Lake, N. Y.
386. *Leucichthys sisco* (Jordan). *Cisco of Lake Tippecanoe*.
 Small lakes of Wisconsin and northern Indiana.
Argyrosomus sisco Jordan, Amer. Nat., 1875, 135, Lake Tippecanoe near Warsaw, Ind.
387. *Leucichthys sisco huronius* (Jordan and Evermann). *Lake Huron herring*; *Blueback or Michigan herring*.
 Lakes Huron and Michigan. The common form from which *L. sisco* is derived.
Argyrosomus huronius Jordan and Evermann, Proc. U. S. Nat. Mus., XXXVI, March 3, 1909, 167, fig. 2, Port Stanley, Ontario.
388. *Leucichthys ontariensis* Jordan and Evermann.
 Lake Ontario and Cayuga Lake, N. Y.
Coregonus clupeiformis DeKay, New York Fauna: Fishes, 1842, 248, pl. 60, fig. 198, Lake Ontario; not *clupeiformis* of Mitchell.
Leucichthys ontariensis Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 13, Lake Ontario and Cayuga Lake, N. Y.
389. *Leucichthys lucidus* (Richardson). *Great Bear Lake herring*.
 Mackenzie River and tributaries; Great Bear Lake and River.
Salmo (*Coregonus*) *lucidus* Richardson, Fauna Bor.-Amer., III, 1836, 207, Pl. XC, fig. 1, with figure, Great Bear Lake.
390. *Leucichthys laurettæ* (Bean). *Lauretta whitefish*.
 Lakes and streams of northern and western Alaska.
Coregonus laurettæ Bean, Proc. U. S. Nat. Mus., IV, 1881, 156, Point Barrow, Alaska.
391. *Leucichthys alascanus* (Scofield). *Arctic lake herring*.
Argyrosomus alascanus Scofield, in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2817, northern Alaska near Bering Straits.
392. *Leucichthys pusillus* (Bean). *Least lake herring*.
 Lakes of Yukon basin and Alaska generally.
Coregonus pusillus Bean, Proc. U. S. Nat. Mus., XI, 1888, 526, Kobuk River, Alaska.
393. *Leucichthys athabascæ* Harper and Nichols. *Athabasca herring*.
 Saskatchewan River.
Leucichthys athabascæ Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 269, Saskatchewan River.
394. *Leucichthys macrognathus* Harper and Nichols. *Mackenzie River herring*.
 Mackenzie River.
Leucichthys macrognathus Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 269, Mackenzie River.

395. *Leucichthys entomophagus* Harper and Nichols.
Mackenzie River.
Leucichthys entomophagus Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 267, Mackenzie River.
396. *Leucichthys gemmifer* Snyder. *Cisco of Lake Bonnerille*.
Bear River Basin.
Leucichthys gemmifer Snyder, Bull. U. S. Bur. Fish., XXXVI, 1817-18 (May 7, 1919), 4, Bear Lake, near Fish Haven, Idaho.
397. *Leucichthys artedi* (LeSueur). *Lake herring; Erie herring; Common lake herring; Grayback*.
Lake Erie and Lake St. Clair; Lake Huron at Port Huron.
Coregonus artedi LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 231, Lake Erie (at Buffalo) and Niagara River (Lewiston).
398. *Leucichthys artedi bisselli* (Bollman). *Rawson Lake herring; Bissell's herring*.
Glacial lakes of southern Michigan once tributary to Lake Erie.
Coregonus tullibeei bisselli Bollman, Bull. U. S. Fish Com., VIII, 1888, 223, Rawson Lake and Howard Lake, Mich.
399. *Leucichthys eriensis* (Jordan and Evermann). *Jumbo herring; Erie great herring*.
Lake Erie and Lake Huron.
Argyrosomus eriensis Jordan and Evermann, Proc. U. S. Nat. Mus., XXXVI, March 3, 1909, 165, fig. 1, Lake Erie at Port Stanley.
400. *Leucichthys reighardi* Koelz.
Lake Michigan.
Leucichthys reighardi Koelz, Occ. Papers, Mus. Zool. Univ. Mich., No. 146, March 22, 1924, 5; Lake Michigan 18 miles off Michigan City, Ind.
401. *Leucichthys alpenæ* Koelz.
Lake Michigan and Lake Huron, including Georgian Bay.
Leucichthys alpenæ Koelz, Occ. Papers, Mus. Zool. Univ. Mich., No. 146, I, March 22, 1924; Lake Michigan off Isle aux Galets.
- Subgenus CISCO Jordan and Evermann.
402. *Leucichthys supernas* Jordan and Evermann. *Cisco of Lake Superior*.
Deep waters of Lake Superior.
Leucichthys supernas Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 22, Lake Superior.
403. *Leucichthys prognathus* (H. M. Smith). *Cisco of Lake Ontario; Ontario longjaw; Bloater; Chub*.
Deep waters of Lake Ontario, in depths of 60 fathoms and more.
Coregonus prognathus Smith, Bull. U. S. Fish Com., XIV, 1894, 4, pl. 1, fig. 3, Lake Ontario at Wilson, N. Y.
404. *Leucichthys johannæ* (Wagner). *Lake Michigan cisco; Bloater of Lake Michigan*.
Northwestern part of Lake Huron in deep water, and also for the whole length of Lake Michigan.
Argyrosomus johannæ Wagner, Science, N. S., XXXI, No. 807, June 17, 1910, 957-958; Lake Michigan in about 25 fathoms, some 18 miles off Racine, Wis.
405. *Leucichthys nigripinnis* (Gill). *Blackfin of Lake Michigan*.
Deep waters of Lake Michigan and certain small lakes in Wisconsin.
Argyrosomus nigripinnis Gill, in Hoy, Trans. Wis. Acad. Sci., I, 1872, 100, Lake Michigan off Racine; name only.
Coregonus nigripinnis Jordan, Man. Vert., ed. 2, 1878, 275; description.
406. *Leucichthys cyanopterus* Jordan and Evermann.
Deep waters of Lake Superior.
Leucichthys cyanopterus Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909 (1911), 27, fig. 13, Lake Superior, off Marquette, Mich.

407. *Leucichthys hoyi* (Gill). *Cisco of Lake Michigan; Kiyi; Chub; Mooneye cisco.*
Lake Michigan in deep water.
Argyrosomus hoyi Gill, in Hoy, Trans. Wis. Acad. Sci., I, 1872, 100, Lake Michigan off Racine; no description.
Argyrosomus hoyi Gill, in Jordan, Amer. Nat., March, 1875, 135, Lake Michigan off Racine, Wis.; description same specimens.
408. *Leucichthys kiyi* Koelz. *Kiyi; Mooneye; Waterbelly.*
Lake Michigan.
Leucichthys kiyi Koelz, Occ. Papers, Mus. Zool. Univ. Mich., No. 104, Dec. 31, 1921; Lake Michigan, 12 miles E. by S. of the mouth of Sturgeon Bay ship channel in about 60 fathoms.
409. *Leucichthys birgei* Wagner. *Cisco of Green Lake.*
Green Lake, Wisconsin.
Leucichthys birgei Wagner, Bull. Wis. Nat. Hist. Soc., IX, 1911, 73, Green Lake, Wis., 28 meters below the surface.
410. *Leucichthys zenithicus* (Jordan and Evermann). *Longjaw of Lake Superior.*
Lake Superior, in deep water; possibly in other lakes.
Argyrosomus hoyi Milner, Rept. U. S. Fish Com., II, 1872-73 (1874), 86, Lake Superior at Outer Island, Wis.; not of Gill, Hoy, or Jordan, and not original type.
Argyrosomus zenithicus Jordan and Evermann, Proc. U. S. Nat. Mus., XXXVI, March 3, 1909, 169, fig. 3, Lake Superior between Duluth and Isle Royale.
- Subgenus ALLOSOMUS Jordan.
411. *Leucichthys manitoulinus* Jordan and Evermann. *Manitoulin tullibee.*
North channel of Lake Huron, and probably lakes of Minnesota.
Argyrosomus tullibee, Evermann and Smith, Rept. U. S. Fish Com., XX, 1894, 320, pl. 28; in part, the plate being tullibee.
Leucichthys manitoulinus Jordan and Evermann, Bull. U. S. Bur. Fish., XXIX, 1909, 31, fig. 16, Blind River, North channel, Lake Huron.
412. *Leucichthys tullibee* (Richardson). *Tullibee; Tulipi.*
Lake Winnipeg Basin, perhaps entering Lake Superior Basin.
Salmo (Coregonus) tullibee Richardson, Fauna Bor.-Amer., III, 1836, 201, Cumberland House, Pine Island Lake, near Lake Winnipeg.
Leucichthys nipigon Koelz, Occ. Papers Mus. Zool. Univ. Mich., No. 158, April 6, 1925; Lake Nipigon, Lake Winnipeg.
- Genus 140. COREGONUS Linnæus. *Whitefishes; Lavarets.*
Coregonus Arteni, Genera Pisc., 1738, 9.
Coregoni Linnæus, Syst. Nat., Ed. X, 1758, 310 (*Salmo lavaretus* L.).
Tripteronotus Lacépède, Hist. Nat. Poiss., V, 1803, 48 (*T. hautin* Lacépède = *Salmo lavaretus* L.).
Coregonus Lacépède, loc. cit., X, 263 (*Salmo lavaretus* L.).
Coregonus Cuvier, Règne Anim. Ed. I, 1817, 162 (*thymallus, lavaretus*, etc.).
413. *Coregonus clupeaformis* (Mitchill). *Whitefish; Labrador whitefish; Lake Superior whitefish; Manitoba whitefish; Musquaw River whitefish; Whiting of Lake Winnepesaukee; Shad of Lake Champlain.*
Great Lakes, excepting Lake Erie; and neighboring waters.
Salmo clupeaformis Mitchill, Amer. Month. Mag., II, 1818, 321, Falls of St. Mary, northern extremity of Lake Huron.
Salmo otsego Clinton, account of the *Salmo otsego* or the Otsego basse, 1822, 1, with plate, Otsego Lake.
Coregonus labradoricus Richardson, Fauna Bor.-Amer., III, 1836, 206, Musquaw River, Labrador.
Salmo (Coregonus) sapidissimus Agassiz, Lake Superior, 1850, 344, Lake Superior.
Salmo lator Agassiz, loc. cit., 348, Lake Superior.
Coregonus neohantoni Prescott, Amer. Jour. Sci. Arts, XI, 1851, 343, Lake Winnepesaukee, N. H.
? *Coregonus richardsonii* Günther, Cat., VI, 1866, 185, Arctic America.

414. *Coregonus clupeaformis albus* (LeSueur). *Lake Erie whitefish; Common whitefish.*
Lake Erie and Lake St. Clair; Lake Ontario and various lakes to western New York and New Hampshire. New York; probably not separable from *Coregonus clupeaformis*, although local differences appear.
Coregonus albus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 232, Lake Erie.
415. *Coregonus nelsonii* Bean. *Humpback whitefish; Nelson's whitefish.*
Alaska, from Bristol Bay northward.
Coregonus nelsonii Bean, Proc. U. S. Nat. Mus., VII, 1884, 48, Nulato, Alaska.
- Genus 141. PROSOPIMUM Milner.
Prosopium Milner, in Jordan, Man. Vert., ed. 2, 1878, 361 (*Coregonus quadrilateralis* Richardson).
416. *Prosopium quadrilaterale* (Richardson). *Menominee whitefish; Pilotfish; Round whitefish; Shadwaite.*
Alaska and upper Great Lakes to New England, in lakes.
Coregonus quadrilateralis Richardson, Franklin's Narrative, 1823, 714, Pl. XXV, fig. 2, Fort Enterprise, British America.
Coregonus novæ-angliæ Prescott, Amer. Jour. Sci. Arts, XI, 1851, 342, Lake Winnepesaukee, N. H.
417. *Prosopium kennicotti* (Milner). *Kennicott's whitefish.*
Mackenzie River, Canada; Yukon River and other streams of the Alaska region; Lake Bennett, Alaska.
Coregonus kennicotti Milner, in Jordan and Gilbert, Synopsis, 1883, 298, Fort Good Hope, British America.
418. *Prosopium preblei* (Harper and Nichols).
Mackenzie River, Canada.
Coregonus preblei Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 1919, 266, Pl. XV, fig. 2, Mackenzie River.
419. *Prosopium stanleyi* (Kendall). *Stanley's whitefish.*
Lakes of northern Maine.
Coregonus stanleyi Kendall, Bull. U. S. Fish Com., XXII, 1902 (1904), 366, with figure, thoroughfare between Mud and Cross Lakes, Aroostook County, Me.
420. *Prosopium williamsoni* (Girard). *Rocky Mountain whitefish.*
Rivers of Sierra Nevada and west slope of the Rocky Mountains, from the Fraser and the Columbia to the Truckee and other streams of the Lahontan Basin of Nevada; abundant, especially in lakes of northern Idaho, western Montana, Washington, and Utah.
Coregonus williamsoni Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 136, Des Chutes River, Oreg.
421. *Prosopium williamsoni cismontanus* (Jordan). *Yellowstone whitefish.*
Streams of the Rocky Mountain region tributary to the upper Missouri.
Coregonus williamsoni cismontanus Jordan, Bull. U. S. Fish Com., IX, 1889, 49, pl. 9, figs. 8, 9, Horsethief Creek, Madison River, Mont.
Hardly distinct from *P. williamsoni*.
422. *Prosopium coulteri* (Eigenmann and Eigenmann). *Coulter's whitefish.*
Headwaters of the Columbia.
Coregonus coulteri Eigenmann and Eigenmann, Amer. Nat., Nov., 1892, 961, Kicking Horse River at Field, British Columbia.
423. *Prosopium couesi* (Milner).
Headwaters of Saskatchewan River.
Coregonus couesi Milner, Rept. U. S. Fish Com., II, 1872-73 (1874), 88, Chief Mountain Lake, Mont.
424. *Prosopium spilonotus* (Snyder). *Bonneville whitefish.*
Bear River Basin.
Coregonus spilonotus Snyder, Bull. U. S. Bur. Fish., XXXVI, 1917-18 (May 7, 1919), 6, Bear Lake, near Fish Haven, Idaho.

425. *Prosopium abyssicola* (Snyder). *Bear Lake whitefish*.
 Bear Lake, Idaho.
Coregonus abyssicola Snyder, Bull. U. S. Bur. Fish., XXXVI, 1917-18
 (May 7, 1919), 8, Bear Lake, near Fish Haven, Idaho.
- Genus 142. **IRILLION** Jordan.
Irillion Jordan, Proc. Acad. Nat. Sci. Phila., LXX, 1918, 342 (*Coregonus oregonius* Jordan and Snyder).
426. *Irillion oregonius* (Jordan and Snyder). *Chiselmouth jack*.
 Mountain streams of Oregon tributary to the Columbia.
Coregonus oregonius Jordan and Snyder, Proc. U. S. Nat. Mus., XXXVI,
 1911, 425, with fig., McKenzie River, Oreg.

Family 49. THYMALLIDÆ. Graylings

- Genus 143. **THYMALLUS** Cuvier. *Graylings*.
Thymallus Cuvier, Règne Anim., ed. 2, II, 1829, 306 (*Salmo thymallus* Linnaeus); not *Thymalus* Latreille, 1802, a genus of *Coleoptera*.
Choregon Minding, Lehrbuch Naturgesch. Fische, 1832, 119 (*Salmo thymallus* L.) substitute for *Thymallus*, regarded as preoccupied.
Orthocolus Gistel, Thierreich, 1848, XI, 1838 (*Salmo thymallus* L.); substitute for *Thymallus*, regarded as preoccupied.
427. *Thymallus signifer* (Richardson). *Arctic grayling*; *Poisson bleu*.
 Mackenzie River to Alaska and the Arctic Ocean.
Coregonus signifer Richardson, Franklin's Jour., 1823, 711; Winter Lake near Fort Enterprise.
Coregonus thymalloides Richardson, Fauna Bor.-Amer., III, 1836, 714, Winter River.
428. *Thymallus tricolor* Cope. *Michigan grayling*.
 Streams of northern Michigan; formerly abundant in Au Sable River, Jordan River, and other streams in the southern peninsula, and Otter Creek, near Keweenaw, in the northern peninsula.
 ?*Thymallus ontariensis* Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 452; said to have been brought by Milbert from Lake Ontario; most likely from Lake Geneva, Switzerland.
Thymallus tricolor Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 80, Au Sable River, Mich.
429. *Thymallus montanus* Milner. *Montana grayling*. A hardy and attractive aquarium fish.
 Madison and Gallatin Rivers, Montana.
Thymallus montanus Milner, Rept. U. S. Fish Com., II, 1872-73 (1874), 741, tributary of Missouri River at Camp Baker.

Family 50. OSMERIDÆ. Smelts

- Genus 144. **MALLOTUS** Cuvier. *Capelins*.
Mallotus Cuvier, Règne Anim., ed. 2, II, 1829, 305 (*Clupea villosa* Müller).
430. *Mallotus villosus* (Müller). *Capelin*; *Lodde*.
 Arctic America, south to Cape Cod and southern Alaska; Kamchatka.
Clupea villosa Müller, Prodr. Zool. Dan., 1777, 245, Greenland.
Salmo arcticus Fabricius, Fauna Grœnlandica, 1780, 177, Greenland.
Salmo grœnlandicus Bloch, Ichthyologie, VIII, 1794, pl. 99, Greenland.
Salmo socialis Pallas, Zoogr. Ross.-Asiat., III, 389, islands between Asia and America.
Osmerus microdon Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 385, no locality.
- Genus 145. **THALEICHTHYS** Girard. *Eulachon*.
Thaleichthys Girard, Pac. R. R. Surv., X, 1858, Fishes, 325 (*T. stevensi* Girard=*Salmo* (*Mallotus*) *pacificus* Richardson).
431. *Thaleichthys pacificus* (Richardson). *Eulachon*; *Candlefish*; *Oolachan*.
 Oregon to Alaska.
Salmo (*Mallotus*) *pacificus* Richardson, Fauna Bor.-Amer., III, 1836, 226, Columbia River.
Thaleichthys stevensi Girard, Pac. R. R. Surv., X, 1858, 325, pl. 75, figs. 1-4, Puget Sound.

- 432. *Thaleichthys albatrossis*** (Jordan and Gilbert). *Kodiak smelt*.
Off Kodiak Island, Alaska.
Osmerus albatrossis Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2823, Kodiak Island; probably not distinct from *Thaleichthys pacificus*.
- Genus 146. SPIRINCHUS** Jordan and Evermann.
Spirinchus Jordan and Evermann, Fishes North and Mid. Amer., I, 1896, 522 (*Osmerus thaleichthys* Ayres).
- 433. *Spirinchus thaleichthys*** (Ayres).
Pacific coast of America from San Francisco northward to Bristol Bay, Alaska.
Osmerus thaleichthys Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 62, San Francisco.
- Genus 147. ALLOSMERUS** Hubbs.
Allosmerus Hubbs, Proc. Biol. Soc. Wash., XXXVIII, 1925, 53 (*Osmerus attenuatus* Lockington).
- 434. *Allosmerus attenuatus*** (Lockington).
Coast of California, from San Francisco northward.
Osmerus attenuatus Lockington, Proc. U. S. Nat. Mus., III, 1880, 66, San Francisco.
- Genus 148. OSMERUS** Lacépède. *Smelts*.
Osmerus Lacépède, Hist. Nat. Poiss., V, 1803, 229 (*Salmo eperlanus* L.).
Eperlanus Gaimard, Voy. Island and Greenland, 1851 (*Salmo eperlanus* L.).
- 435. *Osmerus dentex*** Steindachner. *Rainbow herring*.
Coast of Alaska and south on the Asiatic coast to northern China.
Osmerus dentex Steindachner, Sitzungs-b. Kais. Akad. Wiss. Wien, LXI, 1870, 429, northern China.
- 436. *Osmerus mordax*** (Mitchill). *American smelt; Icefish*.
Atlantic coast of United States, from Virginia northward to Gulf of St. Lawrence; Lakes Champlain and Memphremagog.
Atherina mordax Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 446, New York.
Osmerus viridescens LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 230, coast of Maine.
- 437. *Osmerus mordax spectrum*** (Cope). *Wilton smelt*.
Wilton Pond, Kennebec County, Me.
Osmerus spectrum Cope, Proc. Amer. Phil. Soc., XI, 1870, 490, Wilton Pond, Kennebec County, Me.
- 438. *Osmerus mordax abbotti*** (Cope). *Cobessicontic smelt*.
Landlocked in Cobessicontic Lake, Kennebec County, Me.
Osmerus abbotti Cope, Proc. Amer. Phil. Soc., XI, 1870, 490, Cobessicontic Lake, Me.
- 439. *Osmerus sergeanti*** ²² Norris.
New York Bay and southward.
Osmerus sergeanti Norris, Proc. Acad. Nat. Sci. Phila., XX, 1868, 93, Schuylkill River, N. J.
- Genus 149. HYPOMESUS** Gill. *Surf smelts*.
Mesopus ²³ Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 14 (*Argentina pretiosa* Girard).
Hypomesus Gill, loc. cit., 15 (*Argentina pretiosa* Girard).
- 440. *Hypomesus pretiosus*** (Girard). *Surf smelt*.
Coast of California and Oregon, from Monterey northward.
Argentina pretiosa Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 155, San Francisco.
Osmerus elongatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 17, San Francisco.

²² The fish is described, but not named, in Proc. Acad. Nat. Sci. Phila., XIII, 1861, 58. It is named in Proc. Acad. Nat. Sci. Phila., XX, 1868, 93.

²³ *Mesopus*, a name left in type through failure to correct proof sheets. *Hypomesus* of same date, a page lower, chosen by author as name.

441. *Hypomesus olidus* (Pallas). *Pond smelt*.

Alaska and Kamchatka.

Salmo (*Osmerus*) *olidus* Pallas, Zoogr. Rosso.-Asiat., III, 1811, 391, lakes and rivers of Kamchatka.? *Osmerus oligodon* Kner, Denkschr. Akad. Wiss. Wien, 1865, 185, tab. 4, fig. 1.Genus 150. *THEROBROMUS* Lucas. *Ghost smelts*.*Therobromus* Lucas, in Jordan and Gilbert, Fishes of Bering Sea, 1898, 440 (*T. callorhini* Lucas).442. *Therobromus callorhini* Lucas. *Ghost smelt*.

Bering Sea.

Therobromus callorhini Lucas, in Jordan and Gilbert, Fishes of Bering Sea, in Jordan, Fur Seals and Fur-Seal Islands, Pt. III, 1898, 440, Bering Sea, in southern portion; known only from skeletons and bones found in the stomachs of fur seals.

Family 51. ARGENTINIDÆ. Argentines

Genus 151. *ARGENTINA* Linnæus. *Argentines*.*Argentina* (Artedi) Linnæus, Syst. Nat., Ed. X, 1758, 315 (*A. sphyrræna* L.).*Silus* Reinhardt, Bemærk., Skandinav. Ichthy., 1833, 11 (*Argentina silus* Ascanius).*Acantholepis* Krøyer, Danmarks Fiske, III, 1846-49, 98 (*Argentina silus* Ascanius).443. *Argentina silus* Ascanius.

Northern Europe; occasionally taken on the Grand Banks and off the coast of Maine.

Argentina silus Ascanius, Icon. Rev. Nat., 1763, Pl. III, 3, 24. Norway.*Silus ascanii* Reinhardt, Bemærk., Skandinav. Ichth., 1833, 11, Norway.*Argentina syrtensium* Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 261, off Sable Island in 200 fathoms; from stomach of *Phycis tenuis*.444. *Argentina striata* Goode and Bean.

Gulf of Mexico.

Argentina striata Goode and Bean, Oceanic Ichth., 1895, 52, fig. 62, Gulf Stream.445. *Argentina sialis* Gilbert.

Coast of California.

Argentina sialis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 56, Albatross station 3017 in 58 fathoms.Genus 152. *LEUROGLOSSUS* Gilbert.*Leuroglossus* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 57 (*L. stilbius* Gilbert).446. *Leuroglossus stilbius* Gilbert.

Coast of California, in deep water.

Leuroglossus stilbius Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 57, from Albatross stations 2997 and 2998 in 221 and 40 fathoms.

Family 52. MICROSTOMIDÆ

Genus 153. *NANSENIA* Jordan and Evermann.*Nansenia* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 528 (*Microstomus grænlandica* Reinhardt).447. *Nansenia grænlandica* (Reinhardt).

Greenland.

Microstomus grænlandica Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., VIII, 1841, LXXIV, Greenland.

Family 53. BATHYLAGIDÆ

Genus 154. *BATHYLAGUS* Günther.*Bathylagus* Günther, Ann. Mag. Nat. Hist., II, 1878, 248 (*B. antarcticus* Günther).

448. *Bathylagus benedicti* Goode and Bean.
Gulf Stream.
Bathylagus benedicti Goode and Bean, Oceanic Ichth., 1895, 55, fig. 64, Gulf Stream.
449. *Bathylagus euryops* Goode and Bean.
Gulf Stream.
Bathylagus euryops Goode and Bean, Oceanic Ichth., 1895, 55, fig. 63, Gulf Stream, in about lat. 40° N. and long. 70° W.
450. *Bathylagus pacificus* Gilbert.
Coast of Washington, in deep water.
Bathylagus pacificus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 55, Albatross stations 3071 and 3074, off coast of Washington.
451. *Bathylagus borealis* Gilbert.
Coast of Alaska, in deep water.
Bathylagus borealis Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896), 402, north of Unalaska Island at Albatross station 3327 in 322 fathoms.
452. *Bathylagus milleri* Jordan and Gilbert.
Off coast of southern California in deep water.
Bathylagus milleri Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2825, Cortez Banks, off San Diego, Calif.
- Genus 155. *XENOPHTHALMICHTHYS* Regan.
Xenophtalmichthys Regan, Ann. Mag. Nat. Hist., ser. 9, XV, 1925, 59 (*X. danæ* Regan).
453. *Xenophtalmichthys danæ* Regan.
Depths of the Caribbean Sea.
Xenophtalmichthys danæ Regan, Ann. Mag. Nat. Hist., ser. 9, XV, 1925, 59, off Santa Lucia in deep water.

Suborder STOMIATIOIDEI

Family 54. STOMIATIDÆ

Genus 156. *STOMIAS* Cuvier.

Stomias Cuvier, Règne Anim., Ed. I, 1817, 184 (*Esox boa* Risso).

454. *Stomias ferox* Reinhardt.
Greenland and southward; Gulf Stream, from Bahama Channel to the Grand Banks.
Stomias ferox Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., X, 1842, 77, Greenland.
455. *Stomias affinis* Günther.
Sombrero Island, West Indies.
Stomias affinis Günther, Challenger Rept., XXII, 1887, 205, Pl. LIV, Fig. A; Sombrero Island, West Indies.
456. *Stomias colubrinus* Garman.
Off Panama in deep water.
Stomias colubrinus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 275, Pl. LVII, fig. 7, station 3360, lat. 6° 17' N., long. 82° 5' W. in 1,672 fathoms.
457. *Stomias hexagonatus* Garman.
Eastern tropical Pacific in deep water.
Stomias hexagonatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, Pl. LVI, fig. 5; various stations in the Pacific.
458. *Stomias atriventer* Garman.
Eastern Pacific in deep water.
Stomias atriventer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 277, Pl. LVI, fig. 4, Albatross station 3433, lat. 25° 76' 15" N., long. 109° 48' W., in 1,218 fathoms.
- Genus 157. *DACTYLOSTOMIAS* Garman.
Dactylostomias Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 279 (*D. filifer* Garman).

459. *Dactylostomias filifer* Garman.
Off Panama in deep water.
Dactylostomias filifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 279, Pl. LVI, fig. 6, *Albatross* stations 3413, 3414, and 3418.
- Genus 158. *ZASTOMIAS* Gilbert.
Zastomias Gilbert, Proc., U. S. Nat. Mus., XLVIII, 1915, 322 (*Z. scintillans* Gilbert).
460. *Zastomias scintillans* Gilbert.
Coast of California; Monterey Bay in deep water.
Zastomias scintillans Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 322, pl. 15, off Monterey Bay, Calif.
- Genus 159. *ECHIOSTOMA* Lowe.
Echiostoma Lowe, Proc. Zool. Soc. Lond., 1843, 87 (*E. barbatum* Lowe).
Hyperchoristus Gill, Proc. U. S. Nat. Mus., VI, 1883, 256 (*H. tanneri* = *Echiostoma barbatum*).
461. *Echiostoma barbatum* Lowe.
Madeira; Gloucester, Mass.; and southward in the Gulf Stream to the old Bahama Channel.
Echiostoma barbatum Lowe, Proc. Zool. Soc. Lond., 1843, 88, Madeira.
Hyperchoristus tanneri Gill, Proc. U. S. Nat. Mus., VI, 1883, 256, Gulf Stream at *Albatross* station 2083, at 40° 26' 40" N., 60° 58' W., in 956 fathoms.
462. *Echiostoma margaritum* Goode and Bean.
Middle of the Gulf of Mexico.
Echiostoma margarita Goode and Bean, Oceanic Ichth., 1895, 109, fig. 131, Gulf of Mexico.
- Genus 160. *GRAMMATOSTOMIAS* Goode and Bean.
Grammatostomias Goode and Bean, Oceanic Ichth., 1895, 110 (*G. dentatus* Goode and Bean).
463. *Grammatostomias dentatus* Goode and Bean.
Gulf Stream.
Grammatostomias dentatus Goode and Bean, Oceanic Ichth., 1895, 110, fig. 133, Gulf Stream.
- Genus 161. *PHOTONECTES* Günther.
Lucifer Döderlein, Weigmann's Archiv, 1882, 26 (*L. albipinnis* Döderlein); name preoccupied in Crustacea.
Photonectes Günther, *Challenger* Rept., XXII, 1887, 212 (*L. albipinnis* Döderlein).
464. *Photonectes gracilis* Goode and Bean.
Martinique.
Photonectes gracilis Goode and Bean, Oceanic Ichth., 1895, 112, fig. 137, off Martinique at *Blake* station XL in 472 fathoms.

Family 55. IDIACANTHIDÆ.

- Genus 162. *IDIACANTHUS* Peters.
Idiacanthus Peters, Monatsber. Akad. Wiss. Berlin, 1876, 846 (*I. fasciola* Peters).
Bathyophis Günther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 181 (*B. ferox* Günther).
465. *Idiacanthus ferox* (Günther).
North Atlantic, nearly midway, in 2,750 fathoms.
Bathyophis ferox Günther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 181, middle of North Atlantic in 2,750 fathoms.
466. *Idiacanthus antrostomus* Gilbert.
Coast of southern California in deep water.
Idiacanthus antrostomus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 54, off southern California, at *Albatross* station 2980 in 603 fathoms.

Family 56. MALACOSTEIDÆ

Genus 163. MALACOSTEUS Ayres.

Malacosteus Ayres, Jour. Bost. Soc. Nat. Hist., 1849, 53 (*M. niger* Ayres).

467. *Malacosteus niger* Ayres.

Open sea; Gulf Stream and southward to Barbados.

Malacosteus niger Ayres, Jour. Bost. Soc. Nat. Hist., 1849, 53, Gulf Stream, 42° N., 60° W.

Family 57. ASTRONESTHIDÆ

Genus 164. ASTRONESTHES Richardson.

Astronesthes Richardson, Ichth. Voy. Sulphur, 1845, 97 (*A. nigra*, Richardson).

Phænodon Lowe, Proc. Zool. Soc. Lond., XVIII, 1850, 250 (*P. ringens* Lowe).

468. *Astronesthes richardsoni* (Poey).

Deep waters of West Indies; Indian and Pacific Oceans.

Chauliodus richardsoni Poey, Memorias, I, 1852, 176, Cuba.

469. *Astronesthes gemmifer* Goode and Bean.

Gulf Stream.

Astronesthes gemmifer Goode and Bean, Oceanic Ichth., 1895, 105, fig. 124, Grand Banks, lat. 44° 25' N., long 53° 12' W., in 300 fathoms, in halibut stomach.

470. *Astronesthes niger* Richardson.

Deep waters of all seas.

Astronesthes niger Richardson, Ichth. Voy. Sulphur, 1845, 97, Atlantic.

Family 58. STYLOPTHALMIDÆ

Genus 165. STYLOPTHALMUS Brauer.

Stylophthalmus Brauer, Zool. Anzeiger, XXV, 1902, 298 (*S. paradoxus* Brauer).

471. *Stylophthalmus paradoxus* Brauer.

Open sea, north to southern California (San Pedro, W. F. Thompson).

Stylophthalmus paradoxus Brauer, Tiefseefische Valdivia Exped. (Zool. Anzeiger, XXV), 1902, 298; deep sea off the Cape of Good Hope and the Indian Ocean.

Family 59. CHAULIODONTIDÆ

Genus 166. CHAULIODUS Bloch and Schneider.

Chauliodus Bloch and Schneider, Syst. Ichth., 1801, 430 (*C. sloani* Bloch and Schneider).

Leptodes Swainson, Nat. Hist. Anim., II, 298 (*Chauliodes sloani* Bloch and Schneider).

472. *Chauliodus sloani* Bloch and Schneider.

Mediterranean and deep waters of the Atlantic; Georges Banks.

Chauliodus sloani Bloch and Schneider, Syst. Ichth., 1801, 430, Atlantic; after *Vipera marina* of Catesby.

473. *Chauliodus macouni* Bean.

Coast of California to British Columbia and Queen Charlotte Islands.

Chauliodus macouni Bean, Proc. U. S. Nat. Mus., XIII, 1890, 44, off Cape St. James, Queen Charlotte Islands.

474. *Chauliodus barbatus* Garman.

Off Pacific coast of Panama.

Chauliodus barbatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 271, Pl. K, figs. 2, 2a; off Panama.

Family 60. GONOSTOMIDÆ

Genus 167. GONOSTOMA Rafinesque.

Gonostoma Rafinesque, Indice, 1810, 64 (*G. denudatum* Rafinesque).

475. *Gonostoma denudatum* Rafinesque.

Gulf of Mexico at *Albatross* station 2665; off Morocco and Cape Verdes; Mediterranean Sea.

Gonostoma denudata Rafinesque, Indice, 1810, 65, Palermo.

Genus 168. ZAPHOTIAS Goode and Bean.

Bonapartia Goode and Bean, *Oceanic Ichth.*, 1895, 102 (*B. pedaliota* Goode and Bean); name preoccupied.

Zaphotias Goode and Bean, in Jordan and Evermann, *Fish. North and Mid. Amer.*, 1898, 2826 (*Bonapartia pedaliota* Goode and Bean).

476. *Zaphotias pedaliotus* (Goode and Bean).

Gulf Stream.

Bonapartia pedaliota Goode and Bean, *Oceanic Ichth.*, 1895, 102, fig. 120, *Albatross* station 2642, in 25° 20' 30'' N. Lat., 79° 58' W. Long., depth 217 fathoms.

Genus 169. CYCLOTHONE Goode and Bean.

Cyclothone Goode and Bean, *Bull. Mus. Comp. Zool.*, X, No. 5, 1883, 221 (*C. lusca* Goode and Bean).

Sigmops Gill, *Proc. U. S. Nat. Mus.*, VI, 1883, 256 (*S. stigmaticus* Gill).

Neostoma Filhol, *La Nature*, 1884, 184 (*N. bathyphilum* Filhol).

Subgenus CYCLOTHONE Goode and Bean.

477. *Cyclothone microdon* (Günther).

Bermuda; Atlantic, Pacific, and Antarctic Oceans; Pacific coast from Oregon to Panama.

Gonostoma microdon Günther, *Ann. Mag. Nat. Hist.*, II, 1878, 188, near Bermuda.

Cyclothone lusca Goode and Bean, *Bull. Mus. Comp. Zool.*, X, No. 5, 1883, 221, Gulf Stream.

478. *Cyclothone bathyphila* Vaillant.

Gulf of Gascony and off the Azores; western Atlantic.

Neostoma bathyphilum Filhol, *La Nature*, 1884, 184; name and rough figure only.

Cyclothone bathyphila Vaillant, *Expéd. Sci. Travailleur et Talisman*, Poissons, 1888, 96, pl. 8, figs. 1, 1a; Gulf of Gascony, Azores.

479. *Cyclothone acclinidens* Garman.

Off California in deep water.

Cyclothone acclinidens Garman, *Mem. Mus. Comp. Zool.*, XXIV, 1899, 247, Pl. T, fig. 4; numerous stations of *Albatross* off California coast.

480. *Cyclothone signata* Garman.

Off Panama in deep water.

Cyclothone signata Garman, *Mem. Mus. Comp. Zool.*, XXIV, 1899, 246, Pl. T, fig. 3; *Albatross* station 3382, off Panama.

Subgenus SIGMOPS Gill.

481. *Cyclothone elongata* (Günther).

New Guinea; Banda; American coast; Gulf Stream; Indian Ocean.

Gonostoma elongatum Günther, *Ann. Mag. Nat. Hist.*, II, 1878, 187, New Guinea; Banda.

Sigmops stigmaticus Gill, *Proc. U. S. Nat. Mus.*, VI, 1883, 256, Gulf Stream, in 38° 19' 26'' N., 68° 20' 20'' W.

Genus 170. YARRELLA Goode and Bean.

Yarrella Goode and Bean, *Oceanic Ichth.*, 1895, 103 (*Y. blackfordi* Goode and Bean).

482. *Yarrella blackfordi* Goode and Bean.

Gulf Stream.

Yarrella blackfordi Goode and Bean, *Oceanic Ichth.*, 1895, 103, fig. 121, Gulf Stream at *Albatross* station 2376, in 324 fathoms.

Genus 171. LYCHNOPOLES Garman.

Lychnopoles Garman, *Mem. Mus. Comp. Zool.*, XXIV, 1899, 244 (*L. argenteolus* Garman).

483. *Lychnopoles argenteolus* Garman.

Off Panama in deep water.

Lychnopoles argenteolus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 244, Pl. LIII, figs. 4, 4a; off Panama.**Family 61. MAUROLICIDÆ****Genus 172. MAUROLICUS Cocco.***Maurolicus* Cocco, Nuovi Ann. Sci. Nat., II, 1838, 32 (*M. amethystino punctatus* Cocco).**484. *Maurolicus pennanti* (Walbaum). *Pearlsides*.**

Open seas, widely distributed; New England coast at Nahant, Provincetown, Woods Hole, etc.

Argentina pennanti Walbaum, Artedi Pisc., 1792, 47, England; after "sheppy Argentine" of Pennant.**485. *Maurolicus oculatus* Garman.**

Deep water off Pacific coast of Mexico.

Maurolicus oculatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 241, Pl. LIII, fig. 3; off Pacific coast of Mexico.**Genus 173. VINCIGUERRIA Jordan and Evermann.***Vinciguerria* Jordan and Evermann, in Goode and Bean, Oceanic Ichth., 1895, 513 (*V. attenuata* Cocco).*Zalarges* Jordan and Williams, in Jordan and Starks, Proc. Calif. Acad. Sci., ser. 2, V, 1895, 793 (*Z. nimbarius* Jordan and Williams).**486. *Vinciguerria attenuata* (Cocco).**

Open Atlantic, west to the Bahama regions.

Maurolicus attenuatus Cocco, Nuovi Ann. Sci. Nat., II, 1838, 33, coast of Italy.**487. *Vinciguerria lucetia* (Garman).**

Eastern Pacific, in deep water.

Maurolicus lucetius Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 242, Pl. T, fig. 2; various Albatross stations, eastern Pacific.**488. *Vinciguerria nimbaria* (Jordan and Williams).**

Open sea between Oregon and Hawaii.

Zalarges nimbarius Jordan and Williams, Proc. Calif. Acad. Sci., ser. 2, V, 1895 (1896), 793, open Pacific.**Genus 174. VALENCIENNELUS Jordan and Evermann.***Valenciennellus* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 577 (*Maurolicus tripunctulatus* Esmark).**489. *Valenciennellus tripunctulatus* (Lütken).**

Madagascar; Denmark Straits between Greenland and Iceland.

Maurolicus tripunctulatus Esmark, Christiania Vid. Selsk. Forh., 1870, 488, Madagascar.**490. *Valenciennellus stellatus* Garman.**

Deep water off California.

Valenciennellus stellatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 239, Pl. LIII, fig. 2; off California coast, lat. 30° 31' 35" N., long. 140° 5' 30" W. in 300 fathoms.**Family 62. STERNOPTICHIDÆ****Genus 175. STERNOPTIX Herrmann.***Sternoptix* Herrmann, Naturforscher, 2 Stück, XVI, 1781, 8 (*S. diaphana* Herrmann).*Sternoptyx*, authors' amended spelling.**491. *Sternoptix obscura* (Garman).**

Eastern Pacific in deep water.

Sternoptyx obscura Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 232, Pl. LIII, fig. 1; numerous stations in eastern Pacific in depths ranging from 421 to 1,823 fathoms.

492. *Sternoptix diaphana* Herrmann.

Atlantic; Gulf Stream, from Santa Cruz Island to the Grand Banks.
Sternoptix diaphana Herrmann, Naturforscher, XVI, 1781, 8, Jamaica.

Genus 176. ARGYROPELECUS Cocco.

Argyropelecus Cocco, Arch. del R. Acad. Peloritano, 1829, 146 (*A. hemigymnus* Cocco).

Pleurothyris Lowe, Hist. Fish. Madeira, 1843, 64 (*Sternoptyx olfersi* Cuvier).

493. *Argyropelecus hemigymnus* Cocco.

Atlantic and Mediterranean; Gulf Stream off Southern New England.
Argyropelecus hemigymnus Cocco, Arch. del R. Acad. Peloritano, 1829, 146, coast of Italy.

Sternoptyx mediterraneus Cocco, Giorn. Faro de Messina, IV, 1838, 7, coast of Italy.

494. *Argyropelecus olfersi* (Cuvier).

Open Atlantic; coast of Norway to Brazil and Cape of Good Hope; Grand Banks southward in the Gulf Stream.

Sternoptyx olfersi Cuvier, Règne Anim., ed. 2, II, 1829, 316, near Cape of Good Hope.

Argyropelecus durvillii Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 405, open Atlantic.

495. *Argyropelecus lychnus* Garman.

Western Pacific in deep water.

Argyropelecus lychnus Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 234, Pl. T, fig. 1, 16; many stations in eastern Pacific.

496. *Argyropelecus affinis* Garman.

Tropical Atlantic in deep water.

Argyropelecus affinis Garman, Deep Sea Fishes, in Mem., Mus. Comp. Zool., XXIV, 1899, 237; sta. 2117, N. lat. 15° 24' 40'', W. long. 63° 31' 30'', in 683 fathoms.

Genus 177. POLYIPNUS Günther.

Polyipnus Günther, Challenger Rept., 1887, 170 (*P. spinosus* Günther).

497. *Polyipnus laternatus* Garman.

Off Barbados.

Polyipnus laternatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 238; Blake station 280, off Barbados in 221 fathoms.

498. *Polyipnus spinosus* Günther.

Gulf of Mexico; between the Philippines and Borneo.

Polyipnus spinosus Günther, Challenger Rept., XXII, 1887, 170, from the surface near the Philippine Islands.

Order O. LYOPOMI**Family 63. HALOSAURIDÆ****Genus 178. HALOSAURUS Johnson.**

Halosaurus Johnson, Ann. Mag. Nat. Hist., XIV, 1863, 74 (*H. oweni* (owenii) Johnson).

Halosaurichthys Alcock, loc. cit., 1889, 454, (*H. carinicauda* Alcock).

499. *Halosaurus güntheri* Goode and Bean.

Gulf Stream.

Halosaurus güntheri Goode and Bean, Oceanic Ichth., 1895, 131, Gulf Stream, in lat. 39° 13' N., long. 72° 1' W., Albatross station 2722.

500. *Halosaurus radiatus* Garman.

Off Panama in deep water.

Halosaurus radiatus Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 298, Pl. LX, figs. 2, 2a, Pl. LXXXIV, figs. 3-6; several stations off Panama in depths from 259 to 511 fathoms.

501. *Halosaurus attenuatus* Garman.
Off Panama in deep water.
Halosaurus attenuatus Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 296, Pl. LX, figs. 1, 1a, Albatross station 3413, lat. 2° 34' N., long. 92° 06' W., in 1,360 fathoms.
- Genus 179. **ALDROVANDIA** Goode and Bean.
Aldrovandia Goode and Bean, Oceanic Ichth., 1895, 132 (*Halosaurus rostrata* Günther).
Halosauropsis Collett, Poiss. Prov. Comp. l'*Hirondelle*, Fasc. *X., Monaco, 1896, 143 (*Halosaurus macrochir*).
502. *Aldrovandia rostrata* (Günther).
Mid-Atlantic.
Halosaurus rostratus Günther, Ann. Mag. Nat. Hist., II, 1878, 252, Mid-Atlantic.
503. *Aldrovandia macrochir* (Günther).
Marion Island; Blake stations 308 and 325.
Halosaurus macrochir Günther, Ann. Mag. Nat. Hist., II, 1878, 251, between Cape of Good Hope and Kerguelen Island.
504. *Aldrovandia goodei* (Gill).
Gulf Stream, at Albatross stations 2037 in 1,731 fathoms; 2051 in 1,106 fathoms; 2035 in 1,362 fathoms, and 2052 in 1,098 fathoms.
Halosaurus goodei Gill, Proc. U. S. Nat. Mus., VI, 1883, 257, Gulf Stream off South Carolina.
505. *Aldrovandia gracilis* Goode and Bean.
Gulf Stream and Gulf of Mexico.
Aldrovandia gracilis Goode and Bean, Oceanic Ichth., 1895, 134, fig. 157, off Guadeloupe and in Gulf Stream at Albatross stations 2380 and 2381.
506. *Aldrovandia pallida* Goode and Bean.
Gulf of Mexico, in deep water.
Aldrovandia pallida Goode and Bean, Oceanic Ichth., 1895, 135, fig. 158, Gulf of Mexico, at Albatross station 173.

Order P. HETEROMI. Spiny eels

Family 64. LIPOGENYIDÆ

- Genus 180. **LIPOGENYS** Goode and Bean.
Lipogenys Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 469 (*L. gillii* Goode and Bean).
507. *Lipogenys gillii* Goode and Bean
Gulf Stream.
Lipogenys gillii Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 469, pl. 18, fig. 3, and in Oceanic Ichth., 173, 1895, station 2742, Gulf Stream.

Family 65. NOTACANTHIDÆ

- Genus 181. **NOTACANTHUS** Bloch.
Notacanthus Bloch, Abhandl., Böhmischen Gesellsch. Wiss., I, 1787, 278 (*N. chemnitzii* Bloch).
Acanthonotus Bloch, Ichthyologia, XII, 1797, 113 (*A. nasus* Bloch = *N. chemnitzii* Bloch).
Campylodon (Fabricius, 1798) Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., 1838, 120 (*C. fabricii* Reinhardt).
508. *Notacanthus chemnitzii* Bloch.
Greenland; West Indies; Iceland; Scandinavia; South Greenland.
Notacanthus chemnitzii Bloch, Abhandl., Böhmischen Gesellsch. Wiss., I, 1787, 278, northern seas.
Notacanthus nasus Bloch, Ichthyologia, XII, 1795, 113, pl. 431, "India."
Campylodon fabricii Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., 1838, 120, Greenland.

509. *Notacanthus analis* Gill.

Gulf Stream.

Notacanthus analis Gill, Proc. U. S. Nat. Mus., VI, 1883, 255, lat. 40° N., long. 69° W., Albatross stations 2677 in 478 fathoms and 2676 in 407 fathoms.

510. *Notacanthus phasganorus* Goode.

Grand Banks, Newfoundland.

Notacanthus phasganorus Goode, Proc. U. S. Nat. Mus., III, 1880, 535, Grand Banks of Newfoundland.

511. *Notacanthus spinosus* Garman.

Off Panama.

Notacanthus spinosus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 301, Pl. L, figs. 4, 4a, 4b; Albatross stations 3384 and 3354, 322 and 458 fathoms.

Genus 182. *POLYACANTHONOTUS* Bleeker.

Polyacanthonotus Bleeker, Versl. Akad. Amsterdam (2), VIII, 368 (*Notacanthus rissoanus* Filippi and Verany).

Zanotacanthus Gill, Johnson's Cyclopædia, III, 1876, 883 (*Notacanthus rissoanus* Filippi and Verany).

Maddonaldia Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 467 (*Notacanthus rostratus* Collett).

512. *Polyacanthonotus challenger* (Vaillant).

North Pacific and Bering Sea.

Notacanthus rissoanus Günther, Fishes, *Challenger*, XXII, Part LVII, Pl. LXI, fig. 13 (not of Filippi and Verany).

Notacanthus challenger Vaillant, Expéd. Sci. Travailleur et *Talisman*, 1888, south of Yeddo; based on Günther's description.

513. *Polyacanthonotus rostratus* (Collett).

Gulf Stream.

Notacanthus rostratus Collett, Bull. Soc. Zool. France, 1889, 307, off Newfoundland, at Albatross station 2216 in 963 fathoms, and station 2553 in 551 fathoms.

Order Q. SYMBRANCHIA. Symbranchoid eels

Suborder HOLOSTOMI

Family 66. SYMBRANCHIDÆ

Genus 183. *SYMBRANCHUS* Bloch.

Symbranchus Bloch, Ichthyologia, IX, 1795, 87 (*Symbranchus marmoratus* Bloch).

Unibranchaptura Lacépède, Hist. Nat. Poiss., V, 1803, 658 (*Symbranchus marmoratus*).

Ophisternon McClelland, Calcutta Jour. Nat. Hist., V, 1845, 197 (*O. bengalensis*).

Tetrabranchus Bleeker, Nat. Tijds. Ned. Ind., II, 1862, 69 (*T. micropthalmus* McClelland).

Symbranchus of authors generally; corrected spelling.

514. *Symbranchus marmoratus* Bloch.

Tropical America, in streams from the Amazon northward to southern Mexico and St. Lucia; generally abundant; recorded northward from Vera Cruz, Trinidad, St. Lucia, Lake Peton, Huamuchal, Rio Chisoy, etc.

Symbranchus marmoratus Bloch, Ichthyologia, IX, 1795, 87, pl. 418, tropical America.

Symbranchus immaculatus Bloch, loc. cit., pl. 419, fig. 1.

Symbranchus transversalis Bloch and Schneider, loc. cit., 1801, 524, Guinea; after Gronow.

Unibranchaptura grisea, *marmorata*, *immaculata*, and *lineata* Lacépède, Hist. Nat. Poiss., V, 1803, 658, Surinam.

Symbranchus fuliginosus Ranzani, Nov. Com. Acad. Sci. Bonon, IV, 1840, 75, pl. 11, fig. 1, Brazil.

Muræna lumbricus Gronow, Cat. Fish., 1854, 18, Sea of Guinea.

Symbranchus vittatus Castelnau, Anim. Amer. Sud, Poiss., 84, 1855, pl. 44, fig. 3, Rio de Janeiro.

Order R. CARENCELI. Long-necked eels

Family 67. DERICHTHYIDÆ

Genus 184. DERICHTHYS Gill.

Derichthys Gill, Amer. Nat., XVIII, 1884, 433 (*D. serpentinus* Gill).

515. *Derichthys serpentinus* Gill.

Gulf Stream.

Derichthys serpentinus Gill, Am. Nat., XVIII, 1884, 433, Gulf Stream at Albatross station 2094 in 1,022 fathoms.

Genus 185. GORGASIA Meek and Hildebrand.

Gorgasia Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 133 (*G. punctata* Meek and Hildebrand).

516. *Gorgasia punctata* Meek and Hildebrand.

Panama.

Gorgasia punctata Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 133, Chame Point, Panama.

Order S. APODES

Suborder ENCHELYCEPHALI

Series ANGUILLOIDEI

Family 68. ANGUILLIDÆ. True eels

Genus 186. ANGUILLA Shaw. Eels.

Anguilla Shaw, Gen. Zool., IV, 1803, 15 (*A. anguilla*).

Muraena Bleeker, Poey, etc. (taking as type *Muraena anguilla*, the first species mentioned by Artedi under *Muraena*).

Tribranchus (Peters) Müller, Abhandl., Akad. Wiss. Berlin, 1844 (*T. anguillaris* Peters = *Anguilla australis* Rich).

517. *Anguilla rostrata* (LeSueur). American eel; Fresh-water eel.

Atlantic coast of the United States; very abundant from Maine to Mexico, ascending all rivers south of Canada and east of the Rocky Mountains, individuals sometimes resident throughout the Mississippi Valley; common in the West Indies.

Muraena rostrata LeSueur, Jour. Acad. Nat. Sci. Phila., 1817, 81, Cayuga Lake.

Muraena bostonensis LeSueur, loc. cit., 81, Boston.

Muraena serpentina LeSueur, loc. cit., 82, Newport, R. I.

Muraena macrocephala LeSueur, loc. cit., 82, Saratoga, N. Y.

Muraena argentea LeSueur, loc. cit., 82, Boston Bay.

Anguilla chrysypa Rafinesque, Amer. Month. Mag. and Crit. Rev., 1817, 120, Lake George; Hudson River; Lake Champlain.

Anguilla blephura Rafinesque, loc. cit., 120, Long Island.

Anguilla laticauda Rafinesque, loc. cit., 445, Ohio River.

Anguilla aterrima Rafinesque, Ichth. Ohiensis, 1820, 78, Tennessee and Cumberland Rivers.

Anguilla xanthomelas Rafinesque, loc. cit., 78, Ohio River.

Anguilla lutea Rafinesque, loc. cit., 78, Ohio River.

Anguilla tenuirostris DeKay, N. Y. Fauna: Fishes, 1842, 310, New York.

Anguilla novaeorleansis Kaup, Apodal Fishes, 1856, 43, fig. 33, New Orleans, La.

Anguilla punctatissima Kaup, loc. cit., 44, Niagara River.

Anguilla cubana Kaup, loc. cit., 44, Cuba.

Anguilla novæterræ Kaup, loc. cit., 45, fig. 35, Newfoundland.

Anguilla texana Kaup, loc. cit., 45, fig. 36, Texas.

Anguilla wabashensis Kaup, loc. cit., 46, Wabash River.

Anguilla tyrannus Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 75, Rio Grande.

Family 69. SIMENCHELYIDÆ. Snub-nosed eels

Genus 187. SIMENCHELYS Gill.

Simenchelys Gill, in Goode and Bean, Bull. Essex Inst., 1879, 27 (*S. parasiticus* Gill).

Conchognathus Collett, Bull. Soc. Zool. France, 1889, 123 (*C. grimaldii* Collett).

518. *Simenchelys parasiticus* Gill.

Offshore banks, in deep water, south of Newfoundland; also recorded from the Azores.

Simenchelys parasiticus Gill, in Goode and Bean, Bull. Essex Inst., 1879, 27, Newfoundland banks.

Conchognathus grimaldii Collett, Bull. Soc. Zool. France, 1889, 122, Azores.

Family 70. SYNAPHOBRANCHIDÆ

Genus 188. SYNAPHOBRANCHUS Johnson.

Synaphobranchus Johnson, Proc. Zool. Soc. Lond., 1862, 169 (*S. kaupii* Johnson = *Muraena pinnata* Gronow).

519. *Synaphobranchus pinnatus* (Gronow).

North Atlantic and western Pacific; common about the Madeiras, Canaries, etc., and also about the banks of Newfoundland.

Muraena pinnata Gronow, Cat. Fish., 1854, 19, locality unknown.

Synaphobranchus kaupii Johnson, Proc. Zool. Soc. Lond., 1862, 169, Madeira.

Genus 189. HISTIOBRANCHUS Gill.

Histiobranchus Gill, Proc. U. S. Nat. Mus., VI, 1883, 255 (*H. infernalis* Gill).

520. *Histiobranchus bathybius* (Günther).

Northern and western Pacific in deep water; Bering Strait; off Japan and off Cape of Good Hope; one specimen obtained by Doctor Gilbert in Bering Sea in 1890.

Synaphobranchus bathybius Günther, Ann. Mag. Nat. Hist., XX, 1877, 445, and in Voy. Challenger, 254, Pl. LXII, fig. 6, 1887, off Yeddo; North Pacific; Kerguelen Island.

521. *Histiobranchus infernalis* Gill.

Gulf Stream.

Histiobranchus infernalis Gill, Proc. U. S. Nat. Mus., VI, 1883, 255, Gulf Stream, at Albatross station 2037, 38° 30' N., 69° W., in 1,731 fathoms.

Family 71. ILYOPHIDÆ. Ooze eels

Genus 190. ILYOPHIS Gilbert.

Ilyophis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 351 (*I. brunneus* Gilbert).

522. *Ilyophis brunneus* Gilbert.

One specimen from Chatham Island, Galapagos Archipelago, in 634 fathoms.

Ilyophis brunneus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 352, Chatham Island, Galapagos Archipelago, at Albatross station 2808 in 654 fathoms.

Family 72. MURÆNESOCIDÆ

Genus 191. MURÆNESOX McClelland.

Muraenesox McClelland, Calcutta Jour. Nat. Hist., V, 1844, 408 (*M. tricuspidata* McClelland).

Branchyconger Bleeker, Nederl. Tijdschr. Dierk., II, 1865, 236 (*Muraena savanna* Cuvier).

523. *Muraenesox savanna* (Cuvier).

Cuba to Rio Janeiro, not common; occasional in the Mediterranean Sea.

Muraena savanna Cuvier, Règne Anim., ed. 2, II, 1829, 350, Martinique.

Conger brasiliensis Ranzani, De Novis Spec. Pisc. Diss. Prima., IV, 1838, 17, pl. 13, fig. 1, Brazil.

Congrus curvidens Richardson, Voy. Erebus and Terror, 1844, 111, no locality.

Conger limbatus Castelnau, Anim. Amér. Sud, 1855, 33, pl. 43, fig. 3, Rio Janeiro.

524. *Muraenesox coniceps* Jordan and Gilbert.

Cape San Lucas to the coast of Colombia; generally common.

Muraenesox coniceps Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 348, Mazatlan, Mexico.**Family 73. CONGRIDÆ (LEPTOCEPHALIDÆ).** Conger eels**Genus 192. CONGER Cuvier.** *Conger eels.***a. Adult forms (*Conger*):***Conger* Cuvier, Oken, in Règne Anim., Ed. I, 1817, 231 ("Les Congres" Cuvier, Oken, 1182) (*Muraena conger* Linnæus).*Congrus* Richardson, Voy. *Erebus* and *Terror*, 1844, 107 (*Muraena conger* Linnæus).**b. Larval forms (*Leptocephali*):***Leptocephalus* Scopoli, Int. Hist. Nat., 1777, 453 (*L. morrissi* Gmelin).*Oxyurus* Rafinesque, Caratteri, 1810, 19 (*O. vermiformis* Lacépède).*Helmictis* Rafinesque, Indice, 1810, 62.*Helmichthys* Costa, Fauna Napoli, Pesci, tavoli 31, 1854 (*H. diaphanus* Costa).? *Leptocephalichthys* Bleeker, Act. Soc. Sci. Indo-Neder., I, 69 (*L. hypselosoma* Bleeker, a larval form allied to *Conger*).? *Diaphanichthys* Peters, Sitzungs., Akad. Wiss. Berlin, 1864, 399 (*D. brevicaudus* Peters); larva allied to *Conger*.**525. *Conger conger* (Linnæus).** *Conger eel.*

Atlantic Ocean; generally common on both coasts, from Cape Cod to Brazil, also on coasts of Asia and Africa.

a. Adult forms:*Muraena suprema marginæ pinnæ dorsalis nigro* Artedi, Synon., 40, 1738, 2, Mediterranean.*Muraena conger* Linnæus, Syst. Nat., ed. X, 1758, 245; based on Artedi.*Muraena nigra* Risso, Ichth. Nice, 1810, 93 (black variety), Nice.*Anguilla oceanica* Mitchill, Jour. Acad. Nat. Sci. Phila., 1818, 407, off New York.*Conger verus* Risso, Europ. Mérid., III, 1826, 201, Nice.*Conger vulgaris* Cuvier, Règne Anim., ed. 2, II, 1829, 350, France.*Conger rubescens* Ranzani, De Novis Spec. Pisc. Diss. Prima, 1838, 19, Pl. V, fig. 5, Mediterranean.*Ophisoma obtusa* Swainson, Nat. Hist. Fish., Reptiles, and Amphib., II, 1839, 395, Sicily.*Conger orbignyianus* Valenciennes, D'Orbigny, Voy. Am. Merid., Poiss., 1839, pl. 12, 1, South America.*Conger verreauxi* Kaup, Apodal Fishes, 1856, 115, no locality.*Conger esculentus* Poey, Memorias, II, 1861, 346, Cuba.**b. Larval forms:***Leptocephalus morrissi* Gmelin, Syst. Nat., 1150, 1877, Holyhead, England.*Ophidium pellucidum* Couch, Lond. Mag. Nat. Hist., V, 1832, 3113, 742, England.*Leptocephalus gracilis* Storer, Mem. Amer. Acad., II, 1839, 524, Massachusetts.*Leptocephalus spallanzani*, *candidissimus*, etc., of European writers.**526. *Conger caudilimbatus* (Poey).**

Tropical parts of Atlantic; Pensacola to Cuba and Madeira.

Echelus caudilimbatus Poey, Repertorio, II, 1867, 249, Cuba.*Conger macrops* Günther, Cat., VIII, 1870, 40, Madeira, Bahamas.*Conger caudicula* Bean, Proc. U. S. Nat. Mus., V, 1882, 435, Pensacola.**Genus 193. ARIOSOMA Swainson.***Ariosoma* Swainson, Nat. Hist. Fish., I, 1838, 220; II, 1839, 195 (no type named, logotype as restricted by Bleeker and by Swainson).*Ophisoma acuta* Swainson = *Muraena balearica* De la Roche).*Ophisoma* Swainson, loc. cit., 1839; *Ophisoma acuta* Swainson; substitute for *Ariosoma*; the name preoccupied.*Congermuraena* Kaup, Apodal Fishes, 1856, 71 (108) (*Muraena balearica* De la Roche, as restricted by Bleeker).*Congrellus* Ogilby, Proc. Linn. Soc. New South Wales, XXIII, 1898, 288 (*Muraena balearica* De la Roche).

527. *Ariosoma opisthophthalma* (Ranzani).

West Indies to Brazil.

Conger opisthophthalmus Ranzani, De Novis Spec. Pisc. Diss. Prima, 1838, 16, Pl. V, fig. 1, Bahia.

Conger microstomus Castelnau, Anim. Amér. Sud, 1855, 83, pl. 42, fig. 4, Rio Janeiro.

Conger analis Poey, Memorias, II, 1861, 318, Habana.

Conger impressus Poey, loc. cit., 318, Cuba.

528. *Ariosoma gilberti* (Ogilby).

Panama; probably also at the Galapagos and Cape San Lucas.

Ophisoma balearicum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 349, Albatross station 2797, Panama Bay, 33 fathoms; not of De la Roche.

Congrellus gilberti Ogilby, Proc. Linn. Soc. New South Wales, 1898, 288, after Gilbert.

529. *Ariosoma caudale* (Garman).

Off Panama in deep water.

Congermuræna caudalis Garman, Mus. Comp. Zool., XXIV, 1899, 305; Albatross station 3354, lat. 7° 9' 45" N., long. 80° 50' W., in 322 fathoms.

Genus 194. ANAGO²⁴ Jordan and Hubbs.

Anago Jordan and Hubbs, Mem. Carnegie Mus., X, 1925, 191 (*Conger anago* Schlegel).

530. *Anago nitens* (Jordan and Bollman).

One specimen dredged at Albatross station 2801, off Panama, 8° 47' N., 79° 29' 30" W., in 14 fathoms.

Ophisoma nitens Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 153, Panama.

531. *Anago macrurus* (Gilbert).

Gulf of California.

Ophisoma macrurum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 351, Gulf of California, at Albatross station 3105.

Genus 195. HILDEBRANDIA Jordan and Evermann.

Hildebrandia Jordan and Evermann, Proc. Calif. Acad. Sci., 4th Ser., XVI, Apr. 27, 1927, 502 (*Congermuræna flava* Goode and Bean).

532. *Hildebrandia flava* (Goode and Bean).

Albatross stations 2121 and 2122 in 31 and 34 fathoms; station 2402 in 111 fathoms; also Blake station 264 in 84 fathoms; Gulf Stream.

Congermuræna flava Goode and Bean, Oceanic Ichth., 1895, 138, fig. 159, Gulf Stream.

Genus 196. GNATHOPHIS Kaup.

Gnathophis Kaup, Abhandl., Natur. Verein Hamburg, 1859 (1860), IV, Abth. 2, 7 (*G. heterognathus* Kaup); teeth blunt.

533. *Gnathophis guppieri* (Norman).

West Indies.

Congermuræna guppieri Norman, Ann. Mag. Nat. Hist., ser. 9, XV, 1925, 313, Tobago.

534. *Gnathophis proriger* (Gilbert).

Panama to Ecuador.

Ophisoma prorigerum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 350, coast of Ecuador, at Albatross station 2792 in 401 fathoms; also at station 2799, near Panama.

Genus 197. CONGROSOMA Garman.

Congrosoma Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 308 (*Congrosoma evermanni* Garman).

535. *Congrosoma evermanni* Garman.

Off Panama.

Congrosoma evermanni Garman, Mem. Mus. Comp. Zool., XXIV, 1899, Pl. LXII, fig. 1, Albatross station 3355, lat. 7° 12' 20" N., long. 80° 55' W. in 182 fathoms.

²⁴ The shore species named below may not, any of them, belong to *Anago* or, in fact, to the same genus. They seem nearer the Japanese form *Anago* than to *Ariosoma*.

Genus 198. UROCONGER Kaup.*Uroconger* Kaup, Apodal Fishes, 1856, 110 (*U. lepturus* Kaup).**536. *Uroconger vicinus*** Vaillant.Deep waters off the coast of northern Africa; a young individual taken by the *Albatross* at station 2161 in 146 fathoms.*Uroconger vicinus* Vaillant, Expéd. Sci. Travailleur et *Talisman*, 1883, 86, Pl. VI, fig. 1, Banc d'Arguin, off Soudan, off Cape Verde Islands.**537. *Uroconger varidens*** Garman.

Off Panama in deep water.

Uroconger varidens Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 304, Pl. LXI, fig. 1, *Albatross* stations 3396 and 3357 in 259 and 782 fathoms.**Genus 199. MICROCONGER** Fowler.*Microconger* Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 9 (*Leptocephalus caudalis* Fowler).**538. *Microconger caudalis*** (Fowler).

Coast of Lower California.

Leptocephalus (Microconger) caudalis Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 9; off Lower California.**Genus 200. MAYERINA** Silvester.*Mayerina* Silvester, Carnegie Inst. Year Book, XIV, 1915, 214 (*Mayerina mayeri* Silvester).**539. *Mayerina mayeri*** Silvester.

Porto Rico.

Mayerina mayeri Silvester, Carnegie Inst. Year Book, XIV, 1915, 214, Porto Rico.**Genus 201. XENOMYSTAX** Gilbert.*Xenomystax* Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 348 (*X. atrarius* Gilbert).**540. *Xenomystax atrarius*** Gilbert.

Coast of Ecuador.

Xenomystax atrarius Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 348, 1° S., 81° W., at *Albatross* station 2792 in 401 fathoms.**541. *Xenomystax rictus*** Garman.

Off Panama.

Xenomystax rictus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 315, Pl. N, several *Albatross* stations (3384, 3394, 3354, 3404, 3417) in from 322 to 511 fathoms.**Genus 202. HOPLUNNIS** Kaup.*Hoplunnis* Kaup, Aalen. Fische Hamburg Mus., 1860, 19 (*H. schmidtii* Kaup).**542. *Hoplunnis schmidtii*** Kaup.

Caribbean Sea at Puerto Cabello, near Aspinwall; Colon.

Hoplunnis schmidtii Kaup, Aalen. Fische Hamburg Mus., 1859, 19, pl. 2, fig. 4, Puerto Cabello, near Aspinwall, Colon.**543. *Hoplunnis diomedianus*** Goode and Bean.A single individual obtained by the *Albatross* in the Gulf of Mexico.*Hoplunnis diomedianus* Goode and Bean, Oceanic Ichth., 146, 1895, fig. 163, Gulf of Mexico, *Albatross* station 2402, 28° 36' N., 86° 50' W., 111 fathoms.**Genus 203. NEOCONGER** Girard.*Neoconger* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858 (1859), 171 (*N. mucronatus* Girard).**544. *Neoconger mucronatus*** Girard.

Coast of Texas.

Neoconger mucronatus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858 (1859), 171, St. Joseph Island, Texas.**545. *Neoconger vermiformis*** Gilbert.

Lower California to Panama.

Neoconger vermiformis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 57, off Lower California, at *Albatross* station 3035 in about 30 fathoms.

Genus 204. LEPTOCONGER Poey.

Leptoconger Poey, Anal. Soc. Española Hist. Nat., Madrid, 1880, 250
(*L. perlongus* Poey).

546. *Leptoconger perlongus* (Poey).

Matanzas, Cuba.

Neoconger perlongus Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1874, 67,
pl. 9, figs. 3 and 4, Matanzas, Cuba.

Family 74. NETTASTOMIDÆ. Duckbill eels; Sorcerers**Genus 205. CHLOPSIS Rafinesque.**

Chlopsis Rafinesque, Indice, 1810, 58 (*C. bicolor* Rafinesque).

Saurenehelys Peters, Sitzungsab. Akad. Wiss. Berlin, 1864, 397 (*S. can-*
crivora Peters).

547. *Chlopsis equatorialis* Gilbert.

Coast of Ecuador.

Chlopsis equatorialis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 347,
off coast of Ecuador, 1° S., 81° W., at Albatross station 2792 in 401
fathoms.

548. *Chlopsis gilberti* Garman.

Off Panama and San Diego.

Chlopsis gilbertii Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
Pl. LXII, fig. 2, various stations of the Albatross, from 322 to 511
fathoms.

Genus 206. VENEFICA Jordan and Davis.

Venefica Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 651 (*Net-*
tastoma procerum Goode and Bean).

549. *Venefica procera* (Goode and Bean).

Gulf Stream; also taken off San Pedro, Calif.

Nettastoma procerum Goode and Bean, Bull. Mus. Comp. Zool., X,
1883, 224, Gulf Stream, at Albatross station 325.

550. *Venefica ocella* Garman.

Off Panama in deep water.

Venefica ocella Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 318,
Pl. LXI, fig. 2, Albatross station 3366, lat. 5° 30' N., long. 86° 45' W.,
in 1,067 fathoms.

551. *Venefica tentaculata* Garman.

Off Panama in deep water; San Diego.

Venefica tentaculata Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
319, Pl. M, fig. 2, various Albatross stations at depths ranging from
770 to 978 fathoms.

Genus 207. TÆNIOCONGER Herre.

Tænioconger Herre, Philippine Jour. Sci., XXIII, No. 2, August, 1923,
152 (*T. chapmani* Herre).

552. *Tænioconger digueti* Pellegrin.

Gulf of California.

Tænioconger digueti Pellegrin, Compt. Rend. Acad. Sci. Paris, CLXXVII,
1923, 789, near Island of Espiritu Santo, Gulf of California.

Family 75. ECHELIDÆ. Worm eels**Genus 208. AHLIA Jordan and Davis.**

Ahlia Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 639 (*Myro-*
phis egmontis Jordan).

553. *Ahlia egmontis* (Jordan).

Florida Keys.

Myrophis egmontis Jordan, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884,
44, Egmont Key, Fla.

Genus 209. MYROPHIS Lütken.

Myrophis Lütken, Vid. Med. Naturh. Foren. Kjøbenhavn, 1, 1851
(*M. punctatus* Lütken).

554. *Myrophis punctatus* Lütken.

West Indies; coast of Texas to Surinam; common along our Gulf coast.
Myrophis punctatus Lütken, Vid. Med. Naturh. Foren. Kjöbenhavn, 1, 1851, 9, West Indies.

Myrophis microstigmus Poey, Repertorio, II, 1867, 250, Cuba.

Myrophis lumbricus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 261, Galveston, Tex.

555. *Myrophis vafer* Jordan and Gilbert.

Pacific coast of tropical America, from Guaymas to Panama.

Myrophis vafer Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 645, Panama.

Genus 210. CHILORHINUS Lütken.

Chilorhinus Lütken, Vid. Med. Naturh. Foren. Kjöbenhavn, 1, 1851
 (*C. suensonii* Lütken).

556. *Chilorhinus suensonii* Lütken.

St. Croix, West Indies.

Chilorhinus suensonii Lütken, Vid. Med. Naturh. Foren. Kjöbenhavn, 1, 1851, St. Croix.

Family 76. NEMICHTHYIDÆ. Thread eels; Snipe eels**Genus 211. NEMICHTHYS Richardson.**

Nemichthys Richardson, Voy. *Samarang*, 1848, 25 (*N. scolopaceus* Richardson).

Leptorhynchus Lowe, Ann. Mag. Nat. Hist., X, 1852, 54 (*L. leuchtenbergi* Lowe); preoccupied.

Belonopsis Brandt, Mem. Acad. Sci. St. Petersb., Savans Etrangères, 1854, 174 (*Leptorhynchus leuchtenbergi* Lowe).

557. *Nemichthys scolopaceus* Richardson. *Snipe eel*.

Atlantic Ocean, in deep water; many specimens taken off the New England coast and off the Grand Banks; common about Madeira.

Nemichthys scolopacea Richardson, Voy. *Samarang*, 1848, 25, South Atlantic.

Leptorhynchus leuchtenbergii Lowe, Mem. Acad. Sci. St. Petersb., Savans Etrangères 1854, 171, Madeira.

Belonopsis leuchtenbergii Brandt, loc. cit., 1854, 174 (with good plate).

558. *Nemichthys avocetta* Jordan and Gilbert.

Puget Sound near Seattle; only the type known.

Nemichthys avocetta Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 409, harbor of Port Gamble, near Seattle.

559. *Nemichthys fronto* Garman

Off Pacific coast of Mexico, in deep water.

Nemichthys fronto Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 324, Pl. LXV, fig. 1, Albatross stations 3384 and 3434, in 458 and 1,588 fathoms.

Genus 212. AVOCETTINA Jordan and Davis.

Avocettina Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 655
 (*Nemichthys infans* Günther).

560. *Avocettina infans* (Günther).

Known from West Indies, and middle Atlantic off Pernambuco.

Nemichthys infans Günther, Ann. Mag. Nat. Hist., 5th Ser., II, 1878, 251, and in *Challenger* Rept., XXII, 1887, 264, mid. Atlantic in 2,500 fathoms.

561. *Avocettina gilli* (Bean).

Coast of southeastern Alaska in deep water.

Labichthys gilli Bean, Proc. U. S. Nat. Mus., XIII, 1890, 45, east of Prince of Wales Island, Alaska.

562. *Avocettina elongata* (Gill and Ryder).

Gulf Stream.

Labichthys elongatus Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 262, Gulf Stream at Albatross station 2100, 39° 22' N., 68° 34' W.

Genus 213. SERRIVOMER Gill and Ryder.

Serrivomer Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 260 (*S. beanii* Gill and Ryder).

563. *Serrivomer beanii* Gill and Ryder.

Gulf Stream; also taken in the Gulf of California.

Serrivomer beanii Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261, Gulf Stream, lat. $41^{\circ} 40' 30''$, long. $65^{\circ} 28' 30''$ in 855 fathoms.

564. *Serrivomer sector* Garman.

Gulf of California to Panama in deep water.

Serrivomer sector Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 320, Pl. LXIII, numerous stations of the *Albatross* and off Guaymas, 50 miles south, surface to 700 fathoms.

Genus 214. SPINIVOMER Gill and Ryder.

Spinivomer Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261 (*S. goodei* Gill and Ryder).

565. *Spinivomer goodei* Gill and Ryder.

Gulf Stream.

Spinivomer goodei Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261, Gulf Stream, at lat. $38^{\circ} 19' 26''$, long. $68^{\circ} 20' 20''$ in 2,361 fathoms.

Genus 215. LABICHTHYS Gill and Ryder.

Labichthys Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 261 (*L. carinatus* Gill and Ryder).

566. *Labichthys carinatus* Gill and Ryder.

Gulf Stream.

Labichthys carinatus Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 253, 255, 261, Gulf Stream, $41^{\circ} 13' N.$, $65^{\circ} 33' W.$

567. *Labichthys bowersi* Garman.

Off Panama in deep water.

Labichthys bowersi Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 823, Pl. XIV, fig. 1, *Albatross* stations 3414, 3388, and 3361, in 1,168 to 2,232 fathoms.

Family 77. OPHICHTHYIDÆ. Snake eels**Genus 216. SPHAGEBRANCHUS** Bloch.

Sphagebranchus Bloch, Ichthyologia, IX, 1795, 88, pl. 419 (*S. rostratus* Bloch).

Cæcilia Lacépède, Hist. Nat. Poiss., II, 1800, 135 (*C. brandieriana* Lacépède=*Muræna cæca* Linnæus); not *Cæcilia* L. a genus of *Batrachia*.

Apterichthys Duméril, Zool. Anal., 112, 1806, 331 (*Muræna cæca* Linnæus).

Branderius Rafinesque, Anal. Nat., 1815, 93; substitute for *Cæcilia* Lacépède.

Ichthyapus Brisout de Barneville, Revue Zool., 1847, 219 (*I. acuti-rostris*).

Ophisuraphis Kaup, Apodal Fishes, 1856, 29 (*O. gracilis* Kaup).

568. *Sphagebranchus anguiformis* (Peters).

Open Atlantic, near the West Indies.

Ophichthys (*Sphagebranchus*) *anguiformis* Peters, Monatsber. Akad. Wiss. Berlin, 1876, 849, Atlantic Ocean, $15^{\circ} 40' N.$, $23^{\circ} 5' W.$

569. *Sphagebranchus selachops* (Jordan and Gilbert).

Rocks about Cape San Lucas.

Apterichthys selachops Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 356, Cape San Lucas.

570. *Sphagebranchus ophioneus* Evermann and Marsh.

Porto Rico.

Sphagebranchus ophioneus Evermann and Marsh, Fish. Porto Rico, Bull. U. S. Fish Com., XX, 1900, 73, fig. 7, off Mayaguez, Porto Rico.

Genus 217. VERMA Jordan and Evermann.

Verma Jordan and Evermann, Fishes North and Mid. Amer., 1896, 374 (*Sphagebranchus kendalli* Gilbert).

571. *Verma kendalli* (Gilbert).

Coast of Florida, in rather deep water.

Sphagebranchus kendalli Gilbert, Bull. U. S. Fish Com., IX, 1889 (1891), 310, off west coast of Florida, 25° 34' N., 82° 50' W., in 25 fathoms.**Genus 218. *CRYPTOPTERENCHELYS* Fowler.***Cryptopterus* Kaup, Aalen. Fische Hamburg Mus., II, 1860 (*C. puncticeps* Kaup); name preoccupied.*Cryptopterenchelys* Fowler, Amer. Mus. Novitates, CLXII, March 31, 1925 (*Cryptopterus puncticeps* Kaup); substitute for *Cryptopterus* Kaup, preoccupied.**572. *Cryptopterenchelys puncticeps* (Kaup).**

Caribbean Sea.

Cryptopterus puncticeps Kaup, Aalen. Fische Hamburg Mus., II, 1860, pl. 1, fig. 2, Puerto Cabello.**573. *Cryptopterenchelys frontalis* (Garman).**

Off Panama.

Ophichthys (*Cryptopterus*) *frontalis* Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 309, Albatross stations 3386, 3389, 3391.**Genus 219. *MYRICHTHYS* Girard.***Pisodonophis* Kaup, Apodal Fishes, 1856, 15 (in part; not type, as restricted by Bleeker, which is *P. cancrivorus*).*Myrichthys* Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 58 (*M. tigrinus* Girard).*Ophisurus* Swainson, Bleeker, etc. (not of Lacépède, nor of Risso, nor Kaup, who restrict the name to *O. serpens*).**574. *Myrichthys tigrinus* Girard.**

Pacific coast of Mexico; rather common about Mazatlan, and occasionally ranging northward.

Myrichthys tigrinus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 58, Adair Bay, Oregon; doubtless an error.*Ophisurus xysturus* Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 346, Mazatlan.**575. *Myrichthys xysturus* (Jordan and Gilbert).**

Pacific coast of Mexico; common among the rocks about Mazatlan.

Ophichthys xysturus Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1881, 346, Mazatlan, Mexico.**576. *Myrichthys oculatus* (Kaup).**

Tropical Atlantic; Cuba to Surinam and Cape Verde Islands.

Pisodonophis oculatus Kaup, Apodal Fishes, 1856, 22, Curaçao.*Ophisurus latimaculatus* Poey, Repertorio, II, 1867, 252, pl. 3, fig. 1, Cuba.**577. *Myrichthys acuminatus* (Gronow).**

West Indies, occasionally northward to Florida Keys.

Muræna acuminata Gronow, Fish. Brit. Mus., 1854, 21, Insula Div., Eustachii.*Pisodonophis guttulatus* Kaup, Apodal Fishes, 1856, 21, fig. 10, Martinique.*Ophisurus longus* Poey, Repertorio, II, 1867, 254, Cuba.*Ophichthys pisavarius* Poey, Anal. Soc. Española Hist. Nat., 1875, 196, Cuba.**578. *Myrichthys pantostigmus* Jordan and McGregor.**

Revillagigedo Islands.

Myrichthys pantostigmus Jordan and McGregor, Rept. U. S. Fish Com., XXIV, 1898 (1899), 274, pl. 4, Clarion Island.**Genus 220. *LETHARCHUS* Goode and Bean.***Letharchus* Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 436 (*L. velifer* Goode and Bean).**579. *Letharchus pacificus* Osburn and Nichols.**

Gulf of California.

Letharchus pacificus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 146, fig. 3, Cape San Lucas.

580. *Letharchus velifer* Goode and Bean.

Coast of Florida, in rather deep water; known only from the Snapper Banks off Pensacola and Tampa.

Letharchus velifer Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 437, West Florida.

Genus 221. *PISODONOPHIS* Kaup.

Pisodonophis Kaup, Apodal Fishes, 1856, 17 (*P. cancrivorus* Kaup as restricted by Bleeker; later written *Pisoodonophis* by Kaup and since spelled *Pisodontophis* by purists).

581. *Pisodonophis daspilotos* Gilbert.

Panama.

Pisodonophis daspilotos Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2803, Panama.

Genus 222. *OMOCHELYS* Fowler.

Omocheilus Fowler, Proc. Acad. Nat. Sci. Phila., LXX, 1918, 3 (*Pisoodonophis cruentifer* Goode and Bean).

Styletor Jordan, loc. cit., LXX, 1918 (1919), 343 (*Pisoodonophis cruentifer* Goode and Bean); name preoccupied.

582. *Omocheilus cruentifer* (Goode and Bean).

Two specimens at station 1035 of U. S. Fish Commission steamer *Fish Hawk*, 39° 57' N., 69° 28' W., in 120 fathoms; four others at nearly same region in 245 fathoms.

Pisoodonophis cruentifer Goode and Bean, Oceanic Ichth., 1895, 147, fig. 166, Gulf Stream.

Genus 223. *CALLECHELYS* Kaup.

Callechelys Kaup, Apodal Fishes, 1856, 28 (*C. guichenoti* Kaup).

583. *Callechelys muræna* Jordan and Evermann.

Snapper Banks off Pensacola.

Callechelys muræna Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 466, Snapper Banks.

Genus 224. *BASCANICHTHYS* Jordan and Davis.

Bascanichthys Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 621 (*Cæcula bascanium* Jordan).

584. *Bascanichthys bascanium* (Jordan).

Egmont Key, Florida.

Cæcula bascanium Jordan, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 43, Egmont Key, Fla.

585. *Bascanichthys scuticaris* (Goode and Bean).

West coast of Florida.

Sphagebranchus scuticaris Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 343, Cedar Key.

Sphagebranchus teres Goode and Bean, loc. cit., V, 1882, 436, west Florida.

586. *Bascanichthys cylindricus* Meek and Hildebrand.

Panama.

Bascanichthys cylindricus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 152, Pl. VIII, Chame Point, Panama.

587. *Bascanichthys panamensis* Meek and Hildebrand.

Panama.

Bascanichthys panamensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, Pl. VII, 151, Chame Point, Panama.

588. *Bascanichthys bascanoides* Osburn and Nichols.

Coast of Lower California.

Bascanichthys bascanoides Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 147, fig. 4, San Cristobal, from the stomach of *Mycteroperea venadorum*.

589. *Bascanichthys peninsulæ* (Gilbert).

La Paz Bay, Gulf of California.

Callechelys peninsulæ Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 548, La Paz Bay, Lower California.

Genus 225. QUASSIREMUS Jordan and Davis.

Quassiremus Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 622
(*Ophichthus evionthas* Jordan and Bollman).

590. Quassiremus nothochir (Gilbert).

San Josef Island, Gulf of California.

Ophichthys nothochir Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 58,
San Josef Island, Gulf of California.

591. Quassiremus evionthas (Jordan and Bollman).

Hood Island, Galapagos Archipelago.

Ophichthus evionthas Jordan and Bollman, Proc. U. S. Nat. Mus., XII,
1889, 154, Hood Island, Galapagos Archipelago.

Genus 226. OPHICHTHUS Thunberg and Ahl.

Ophichthus Ahl, De Muræna et Ophichtho, 1789 (*Muræna ophis* L.).

Cogrus Rafinesque, Caratteri, 1810, 62 (*C. maculatus* Rafinesque).

Centrurophis Kaup, Apodal Fishes, 1856, 2 (*C. spadiceus* Kaup).

Pacilocephalus Kaup, loc. cit., 5 (*P. bonapartei* Kaup).

Microdontophis Kaup, loc. cit., 6 (*M. altipinnis* Kaup).

Cæcilophis Kaup, loc. cit., 6 (*C. compar* Kaup).

Herpetoichthys Kaup, loc. cit., 7 (*H. ornatissimus* Kaup).

Elapsopsis Kaup, loc. cit., 9 (*E. versicolor* Kaup).

Murænopsis Kaup, loc. cit., 11 (*Murænophis ocellatus* LeSueur); the
name wrongly credited to LeSueur.

Scytalophis Kaup, loc. cit., 13 (*S. magniocularis* Kaup).

Leptorhinophis Kaup, loc. cit., 14 (*Ophisurus gomesi* Castelnau).

Uranichthys Poey, Repertorio, II, 1867, 256 (*Muræna havannensis*
Bloch and Schneider).

Oxyodontichthys Poey, Anales Soc. Española Hist. Nat., 1880, 254
(*macrurus*).

Ophichthys Bleeker, Günther, and of recent authors generally.

592. Ophichthus ophis (Linnæus).

West Indies; apparently not common.

? *Serpens marinus maculosus* Willoughby, Hist. Pisc., 1686, Tab. G., 9,
no locality.

? *Muræna ophis* Linnæus, Syst. Nat., ed. X, 1758, 244; after Willoughby;
may be identical with *Ophichthys regius*, a St. Helena species likewise
spotted with black.

Innominado Parra, Dif. Piezas Hist. Nat., 1787, pl. 37, fig. 2, Habana.

Muræna havannensis Bloch and Schneider, Syst. Ichth., 1801, 491;
after Parra.

? *Ophisurus guttatus* Cuvier, Règne Anim., ed. 1, 1817, 232, Surinam;
after Bloch, pl. 154.

? *Muræna maculosa* Cuvier, loc. cit., Surinam; after *Ophisurus ophis*
Lacépède, which is based on Bloch, pl. 154.

Herpetoichthys sulcatus Kaup, Apodal Fishes, 1856, 8, fig. 5, locality
unknown.

Uranichthys brachycephalus Poey, Repertorio, II, 1867, 257, Cuba.

593. Ophichthus retropinnis Eigenmann.

Snapper Banks off Pensacola, Fla.

Ophichthys retropinnis Eigenmann, Proc. U. S. Nat. Mus., X, 1887, 116,
Snapper Banks off Pensacola.

594. Ophichthus guttifer (Bean and Dresel).

Snapper Banks off Pensacola, Fla.

Ophichthys guttifer Bean and Dresel, Proc. Biol. Soc. Wash., II, 1884,
100, Snapper Banks.

595. Ophichthus ocellatus (LeSueur).

West Indies, south to Brazil and north to Pensacola.

Murænophis ocellatus LeSueur, Jour. Acad. Nat. Sci. Phila., V, 1825,
108, pl. 4, fig. 3, South America.

596. *Ophichthus triserialis* (Kaup).
Pacific coast of tropical America, rather common from Lower California to the Galapagos.
Muraenopsis triserialis Kaup, Apodal Fishes, 1856, 12, Pacific.
Herpetoichthys callisoma Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 475, locality unknown.
Ophisurus californiensis Garrett, Proc. Calif. Acad. Nat. Sci., III, 1863, 66, Margarita Bay, Lower California.
Ophichthus rugifer Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 155, Charles Island, Galapagos; young with longer pectorals.
597. *Ophichthus biserialis* (Garman).
Galapagos Islands.
Ophichthus biserialis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 311, Chatham Island.
598. *Ophichthus chamensis* Meek and Hildebrand.
Panama.
Ophichthus chamensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 155, Pl. VIII, fig. 2, Chame Point, Panama.
Subgenus *SCYTALOPHIS* Kaup.
599. *Ophichthus gomesii* (Castelnau). *Sea serpent; Sea eel; Whipsnake eel.*
South Carolina to Rio Janeiro; generally common, especially about the Florida Keys and Cuba.
Ophisurus gomesii Castelnau, Anim. Amér. Sud, 1855, 84, pl. 44, fig. 2; Rio Janeiro.
Ophisurus chrysops Poey, Memorias, II, 1861, 321, Habana.
Oxydontichthys brachyurus Poey, Synopsis, 1868, 426; and Poey, Enumeratio, II, 1875, 155, Habana.
Oxydontichthys macrurus Poey, Anal. Soc. Española Hist. Nat., 1880, 254, Habana.
Oxydontichthys limbatus Poey, loc. cit., 254, Habana; name a substitute for *brachyurus*.
600. *Ophichthus zophochir* (Jordan and Gilbert).
Pacific Coast of Mexico, Guaymas to Acapulco.
Ophichthus zophochir Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 347.
601. *Ophichthus magniocularis* (Kaup).
West Indies to Brazil; Aspinwall.
Scytalophis magniocularis Kaup, Apodal Fishes, 1856, 13, fig. 7, St. Croix; Brazil.
602. *Ophichthus parilis* (Richardson).
Cuba to Brazil.
Ophisurus parilis Richardson, Voy. *Erebus* and *Terror*, 1844, 105, West Indies.
Ophichthus pauciporus Poey, Repertorio, II, 1868, 255, pl. 3, fig. 5.
- Genus 227. *MYSTRIOPHIS* Kaup.
Mystriophis Kaup, Apodal Fishes, 1856, 10 (*Ophisurus rostellatus* Richardson).
Crotalopsis Kaup, Abhandl. Natur. Verein Hamburg, IV, 1860, 12 (*C. quinctifer* Kaup).
Echiopsis Kaup, loc. cit., 13, (*Ophisurus intertinctus* Richardson).
Macrondonophis Poey, Repertorio, II, 1867, 251 (*M. mordax ophiurus* Poey).
- Subgenus *ECHIOPSIS* Kaup
603. *Mystriophis intertinctus* (Richardson).
West Indies, north to Pensacola, Fla.
Ophisurus intertinctus Richardson, Voy. *Erebus* and *Terror*, Fishes, 1844, 102, West Indies.
Ophisurus sugillatus Richardson, loc. cit., 103, probably West Indies.
Crotalopsis punctifer Kaup, Abhandl. Natur. Verein Hamburg, IV, 1860, 2, 12, pl. 1, fig. 3, Puerto Cabello.
Conger mordax Poey, Memorias, II, 1861, 319, Cuba.
Ophichthus schneideri Steindachner, Ich. Beitr., VIII, 1879, 66, Brazil.

Genus 228. SCYTALICHTHYS Jordan and Davis.

Scytalichthys Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 635 (*Ophichthys miurus* Jordan and Gilbert).

604. Scytalichthys miurus (Jordan and Gilbert).

Cape San Lucas, Lower California.

Ophichthys miurus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 357, Cape San Lucas.

Genus 229. BRACHYSOMOPHIS Kaup.

Brachysomophis Kaup, Apodal Fishes, 1856, 9 (*B. horridus* Kaup).

?*Achrophichthys* Bleeker, Poisson Ined. Murènes, Ned. Tijdschr. Dierk., II, 242, 1865, (*A. typus*), young.

605. Brachysomophis crocodilinus (Bennett).

East Indies; a specimen recorded by Günther from the Galapagos.

Ophisurus crocodilinus Bennett, Proc. Zool. Soc. Lond., 1833, 32, Mauritius.

Brachysomophis horridus Kaup, Apodal Fishes, 1856, 9, fig. 6, Otaheite [Tahiti].

?*Achirophichthys typus* Bleeker, Nederl. Tijdschr. Dierk., II, 1865, 242, Celebes.

Family 78. ACANTHENCHELYIDÆ**Genus 230. ACANTHENCHELYS** Regan.

Acanthenchelys Regan, Ann. Mag. Nat. Hist., X, 1922, 296 (*A. spinicauda* Regan).

606. Acanthenchelys spinicauda Regan.

West Indies.

Acanthenchelys spinicauda Regan, Ann. Mag. Nat. Hist., X, 1922, 296, Island of Tobago.

Family 79. MORINGUIDÆ**Genus 231. MORINGUA** Gray.

Moringua Gray, Zool. Misc., 1831, 9 (*M. lateralis* Gray).

Rataboura Gray, Illust. Ind. Zool., 1831, 95 (*Muræna ratibouri* Hamilton = *Ratabouri hardwicki* Gray).

Pachyurus Swainson, Nat. Hist. Fish, Reptiles and Amphib., II, 1839, 335 (*Moringua linearis* Gray; not of Agassiz, 1829).

Pseudomoringua Bleeker, Nederl. Tijdschr. Dierk., II, 1865, 114 (*Moringua lumbricoides* Richardson).

607. Moringua boekei Metzelaar.

Caribbean Sea.

Moringua boekei Metzelaar, Trop. Atl. Visschen, 1919, 17, Curaçao.

Genus 232. APHTHALMICHTHYS Kaup.

Aphthalmichthys Kaup, Apodal Fishes, 1856, 68 (*A. javanicus* Kaup).

608. Aphthalmichthys caribbeus Gill and Smith.

Porto Rico.

Aphthalmichthys caribbeus Gill and Smith, Science, XI, No. 286, 1900, 974, San Geronimo, near San Juan, Porto Rico.

Genus 233. STILBISCUS Jordan and Bollman.

Stilbiscus Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888, 549 (*S. edwardsi* Jordan and Bollman).

609. Stilbiscus edwardsi Jordan and Bollman.

Green Turtle Cay, one of the Bahamas.

Stilbiscus edwardsi Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888, 549, Green Turtle Cay, Bahamas.

Genus 234. GORDIICHTHYS Jordan and Davis.

Gordiichthys Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 644 (*G. irretitus* Jordan and Davis).

610. Gordiichthys irretitus Jordan and Davis.

Snapper Banks off west Florida in rather deep water.

Gordiichthys irretitus Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 644, off Pensacola, Fla.

Order T. COLOCEPHALI

Family 80. MURÆNIDÆ. Morays

Genus 235. ENCHELYCORE Kaup.

Enchelycore Kaup, Apodal Fishes, 1856, 72 (*Muræna nigricans* Bonnaterre).

611. *Enchelycore nigricans* (Bonnaterre).

West Indies; rather common.

Muræna unicolor maxillis elongatus teretiusculus, inferiore longiore, etc., Gronow, Zoophy., 1, 1763, 163, South America.

Muræna nigricans Bonnaterre, Encycl. Meth. Ichth., 1788, 34; after Gronow.

Muræna anguina Gronow, Cat. Fish., 1854, 18, South America.

Enchelycore euryrhina Kaup, Apodal Fishes, 1856, 73, no locality.

612. *Enchelycore nigrocastaneus* (Cope).

West Indies.

Gymnothorax nigrocastaneus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 483, St. Martin.

?*Gymnothorax umbrosus* Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1874, 67, Habana, Cuba.

Genus 236. MURÆNA Linnæus. Morays.

Muræna Artedi, Gen. Pisc., 1738, 23, in part; includes all eels.

Muræna Klein, Hist. Pisc., 1742, 28, in part; includes all eels without pectoral fins.

Muræna Linnæus, Syst. Nat., ed. X, 1758, 244 (*helenæ*, etc.); includes all eels.

Muræna Thunberg and Ahl, De *Muræna et Ophichthus*, 1789, 6 (restricted to *helenæ*, etc.), includes species without pectoral fins.

Muræna Günther and of authors generally; not of Bleeker.

Murænophis Lacépède, Hist. Nat. Poiss., V, 1803, 630 (*helenæ*, etc.).

Limamuræna Kaup, Apodal Fishes, 1856, 95 (*L. guttata* Kaup).

613. *Muræna melanotis* (Kaup).

Tropical Atlanta, from Africa to South America.

Limamuræna melanotis Kaup, Aalen. Fische Hamburg Mus., 1859, 27, pl. 4, fig. 3.

614. *Muræna lentiginosa* Jenyns. *Morena pinta*.

Pacific coast of America, from Gulf of California to Galapagos.

Muræna lentiginosa Jenyns, Voy. *Beagle*, Zool., 1842, 143, Galapagos Islands.

Muræna pinta Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 345, Mazatlan.

615. *Muræna retifera* Goode and Bean.

Coast of South Carolina, in rather deep water; one taken at Tucker-nuck Island, Mass.

Muræna retifera Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 435, off Charleston.

616. *Muræna argus* (Steindachner).

Gulf of California.

Gymnothorax (Limamuræna) argus Steindachner, Ichth. Notizen, X, 1870, 17, Pl. IV, Altata, Gulf of California.

617. *Muræna insularum* Jordan and Davis.

Galapagos Islands.

Muræna insularum Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 609, Chatham Island.

618. *Muræna myrialeucosticta* Fowler.

West Indies.

Muræna myrialeucosticta Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 18, St. Martin.

619. *Muræna clepsydra* Gilbert.

Panama.

Muræna clepsydra Gilbert, in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2805, Panama.

Genus 237. PYTHONICHTHYS Poey.

Pythonichthys Poey, Repertorio, II, 1867, 265 (*P. sanguineus* Poey).

620. *Pythonichthys sanguineus* Poey.

Coast of Cuba, in rather deep water.

Pythonichthys sanguineus Poey, Repertorio, II, 1867, 265, pl. 2, fig. 7, Cuba.**Genus 238. *RABULA* Jordan and Davis.***Rabula* Jordan and Davis, Rept. U. S. Fish Com., XVI, 1888, 589 (*R. aquæ-dulcis* Jordan and Davis=*Rabula davis* Fowler, not *Muræna aquæ-dulcis* Cope).**621. *Rabula davis* Fowler.**

Said to be from San Diego, which is doubtful.

Rabula davis Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 21; after *Rabula aquæ-dulcis* Jordan and Davis; not of Cope.**622. *Rabula marmorea* (Valenciennes).**

Galapagos Islands.

Murænophis marmoreus Valenciennes, Voy. Vénus, Zool., 1855, 347, pl. 10, fig. 1, Galapagos.**623. *Rabula panamensis* (Steindachner).**

Pacific coast of Central America.

Muræna panamensis Steindachner, Ichth. Beitr., V, 1876, 19, Panama.**624. *Rabula longicauda* (Peters).**

Tropical Atlantic, off the West Indies.

Muræna longicauda Peters, Monatsberichte, 1876, 850, open Atlantic, with *Sphagebranchus anguiformis*.**Genus 239. *GYMNOTHORAX* Bloch. *Morays*.***Gymnothorax* Bloch, Naturgesch. Ausl. Fische, IX, 1795, 83, restricted to allies of *M. afra* by Günther (*G. muræna* Bloch).*Lycondontis* McClelland, Calcutta Jour. Nat. Hist., V, No. XVIII, 1844, 173 (*L. literata*=*tile*).*Throndontis* McClelland, loc. cit., V, No. XVIII, 1844, 174 (*T. reticulata*=*tesselata*).*Eurymyctera* Kaup, Apodal Fishes, 1856, 72, (*E. crudelis* Kaup).*Polyuranodon* Kaup, loc. cit., 96 (*Muræna polyuranodon* Bleeker).*Tæniophis* Kaup, Aalen. Fische Hamburg Mus., Nachträge, 1859, 10 (*T. westphali* Kaup).*Præodontophis* Kaup, loc. cit., 1859, 22 (*Gymnothorax ocellatus* Agassiz).*Neomuræna* Girard, U. S. Mex. Bound. Surv., Fishes, 1859, 76 (*N. nigromarginata* Girard=*ocellatus*).*Pseudomuræna* Johnson, Proc., Zool. Soc. Lond., 1860, 167 (*P. madeirensis* Johnson).**625. *Gymnothorax mordax* (Ayres). *Conger eel of California*.**

Point Conception to Cedros Island; abundant about Santa Barbara Islands.

Muræna mordax Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 30, Cerros [Cedros] Island.**626. *Gymnothorax moringa* (Cuvier). *Common spotted moray*; *Hamlet*; *Bel*.**

Gulf of Mexico, Pensacola, and West Indies to Rio Janeiro and St. Helena.

Muræna maculata nigra; the black moray, Catesby, Nat. Hist. Carolinas, etc., 1738, pl. 21, Bahamas.? *Gymnothorax afer* Bloch, Syst. Ichth., 1795, pl. 417, Africa.*Muræna moringa* Cuvier, Règne Anim., ed. 2, II, 1829, 352; after Catesby.*Gymnothorax rostratus* Agassiz, Spix, Pisc. Brasil., 1830, 91, pl. 50a, Brazil.*Muræna moringua* Richardson, Voy. Erebus and Terror, Fishes, 1844, 89, Jamaica.*Muræna punctata* Gronow, Cat. Fish., 1854, 18, North America.*Murænophis curvilineata* Castelnau, Anim. Amér. Sud, Poiss., 1855, 81, pl. 42, fig. 2, Rio Janeiro.*Murænophis caramuru* Castelnau, loc. cit., 85, pl. 43, Bahia.*Gymnothorax flavoscriptus* Poey, Enumeratio, 1875, 158, Cuba.*Gymnothorax picturatus* Poey, Anal. Soc. Española Hist. Nat., 1880, 257, Cuba.

627. *Gymnothorax funebris* Ranzani. *Black moray; Morena verde.*
Tropical America; Rio Janeiro; West Indies.
Muræna maculata nigra et viridis (the moray) Catesby, Nat. Hist. Carolinas, etc., 1738, pl. 20, Bahamas.
Gymnothorax funebris Ranzani, Nov. Com. Acad. Sci. Inst. Bonon., IV, 1840, 76, Brazil.
Muræna lincopinnis Richardson, Voy. *Erebus and Terror*, Fishes, 1844, 89, Puerto Cabello.
Muræna infernalis Poey, Memorias, II, 1861, 347, 354, Cuba.
Thyrsoidea concolor Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 479, Vera Cruz.
Muræna crebus Poey, Memorias, II, 1861, 426, Cuba.
628. *Gymnothorax castaneus* (Jordan and Gilbert).
Pacific coast of Mexico; common about Mazatlan; representing *G. funebris* of the West Indies.
Sidera castanea Jordan and Gilbert, Proc. U. S. Nat. Mus., V. 1882, 647, Mazatlan.
629. *Gymnothorax sanctæ-helenæ* (Günther).
Tropical Atlantic; recorded from St. Helena and the Bermudas.
Muræna sanctæ-helenæ Günther, Cat., VIII, 1870, 115, St. Helena.
630. *Gymnothorax vicinus* (Castelnau).
Tropical Atlantic, Cuba to Africa and Brazil.
Murænophis vicina Castelnau, Anim. Amér. Sud, Poiss., 1855, 81, pl. 42, fig. 4, Bahia.
Gymnothorax versipunctatus Poey, Enumeratio, 1875, 156, Cuba.
Thyrsoidea maculipinnis Kaup, Apodal Fishes, 1856, 86, Gold Coast.
631. *Gymnothorax punctarenæ* Fowler.
Puntarenas, Costa Rica, one specimen known.
Gymnothorax punctarenæ Fowler, Copeia, No. 39, Jan. 24, 1917, 3, Puntarenas, Costa Rica.
632. *Gymnothorax brunneus* Nichols.
Bermudas.
Gymnothorax brunneus Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 59, Bermuda.
633. *Gymnothorax virescens* Poey.
Cuba.
Gymnothorax virescens Poey, Enumeratio, 1875, 156, Cuba.
634. *Gymnothorax polygonius* Poey.
Cuba.
Gymnothorax polygonius Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1870, 68, Habana.
635. *Gymnothorax dovii* (Günther). *Morena pintila.*
Gulf of California to the Galapagos Archipelago.
Muræna dovii Günther, Cat., VIII, 1870, 103, Panama.
Muræna pintila Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 346, Mazatlan.
636. *Gymnothorax conspersus* Poey.
Cuba to Rio Janeiro.
Murænophis punctata Castelnau, Anim. Amér. Sud, 1855, 82, Rio Janeiro; not *Gymnothorax punctatus* Bloch.
Gymnothorax conspersus Poey, Repertorio, II, 1868, 259, Cuba.
637. *Gymnothorax jordani* (Evermann and Marsh).
Porto Rico.
Lycodontis jordani Evermann and Marsh, Fish. Porto Rico, Bull. U. S. Fish Com., XX, 1900 (1902), pt. 1, 78, pl. 2; off Mayaguez, Porto Rico.
638. *Gymnothorax miliaris* (Kaup).
West Indies.
Thyrsoidea miliaris Kaup, Apodal Fishes, 1856, 90, Martinique.
Muræna multocellata Poey, Memorias, II, 1861, 324, Cuba; based on specimens with smaller spots than usual.
Gymnothorax scriptus Poey, Repertorio, II, 1868, 261, Cuba.
Muræna myrialeucostictus Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 18, St. Martins, West Indies.

639. *Gymnothorax elaboratus* (Poey).
Cuba.
Muraena elaborata Poey, *Memorias*, II, 1861, 323, Cuba.
640. *Gymnothorax obscuratus* Poey.
Cuba.
Gymnothorax obscuratus Poey, *Ann. Lyc. Nat. Hist. N. Y.*, IX, 1870, 320, Cuba.
641. *Gymnothorax chlevastes* (Jordan and Gilbert).
Galapagos Islands.
Sidera chlevastes Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, VI, 1883, 208, Galapagos.
642. *Gymnothorax albimentis* (Evermann and Marsh).
Porto Rico.
Lycodontis albimentis Evermann and Marsh, *Fish. Porto Rico*, *Bull. U. S. Fish Com.*, XX, 1900 (1902), pt. 1, 78, fig. 9; off Culebra Island.
643. *Gymnothorax concolor* (Abbott).
West Indies.
Thyrsoidea concolor Abbott, *Proc. Acad. Nat. Sci. Phila.*, XII, 1860, 479, Vera Cruz.
? *Muraena erebus* Poey, *Memorias*, II, 1861, 426, Cuba.
644. *Gymnothorax aquædulcis* (Cope).
Rio Grande, Costa Rica.
Muraena aquædulcis Cope, *Rept., U. S. Geol. Surv.*, 1871 (1872), 474; said to be from Rio Grande, Costa Rica. It is evidently not a fresh-water fish. According to Fowler, it is not a *Rabula*, the dorsal beginning well before the gill opening.
645. *Gymnothorax carcinognathus* Fowler.
West Indies.
Gymnothorax carcinognathus Fowler, *Proc. Acad. Nat. Sci. Phila.*, LXIV, 1912, 22, St. Martins, West Indies.
646. *Gymnothorax verilli* (Jordan and Gilbert).
Panama; one specimen known.
Sidera verrilli Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, V, 1882, 623, Panama.
647. *Gymnothorax ocellatus* Agassiz. *Spotted moray; Moray eel.*
Pensacola to Rio Janeiro.
Gymnothorax ocellatus Agassiz, *Spix, Pisc. Brasil.*, 1828, 91, pl. 50b, Brazil.
648. *Gymnothorax ocellatus saxicola* Jordan and Davis.
Snapper Banks off Pensacola and deep water off Cuba.
Muraena meleagris Quoy and Gaimard, *Voy. Freycinet*, *Zool.*, 1824, 245, pl. 52, fig. 2; not of Shaw.
Gymnothorax ocellatus saxicola Jordan and Davis, *Rept. U. S. Fish Com.*, XVI, 1888, 606, Snapper Banks off Pensacola.
649. *Gymnothorax ocellatus nigromarginatus* (Girard).
Coast of west Florida and Texas.
Neomuraena nigromarginata Girard, *U. S. Mex. Bound, Surv.*, 1859, 76, pl. 41, St. Joseph Island, Tex.
- Genus 240. *SIDEREA* Kaup.
Sidera Kaup, *Uebersicht der Aale*, 1856, 59 (*Muraena pfeifferi* Bleeker = *Muraena picta* Ahl); name later written *Sidera*.
650. *Sidera picta* (Ahl).
South Seas; East Indies; Hawaii; Revillagigedos; taken at Clarion Island.
Muraena picta Ahl, *De Muraena et Ophichtho*, VI, 1787, 6, tab. 2.
Muraenophis pantherina Lacépède, *Hist. Nat. Poiss.*, V, 1803, 628.
Muraena variegata Quoy and Gaimard, *Voy. Uranie*, 1824, 246, pl. 52.
Muraena lita Richardson, *Voy. Erebus and Terror*, 1844, 84, Moluccas.
Muraena siderea Richardson, *loc. cit.* 85, pl. 48, Australia.
Muraena pfeifferi Bleeker, *Nat. Tijds. Ned. Ind.*, V, 173, Celebes.

Genus 241. AHYNNODONTOPHIS Fowler.

Ahygnodontophis Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 25 (*A. stigmanotus* Fowler).

651. *Ahygnodontophis stigmanotus* Fowler.

West Indies (?).

Ahygnodontophis stigmanotus Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 25; supposed to be from the West Indies.

Genus 242. ECHIDNA Forster.

Echidna Forster, Bibliotheca Banksiæ, 1777, 181 (*E. variegata* Forster).

Gymnomuræna Lacépède, Hist. Nat. Poiss., V, 1803, 648 (*G. doliata* Lacépède).

Gymnopsis Rafinesque, Anal. Nat., 1815, 93 (substitute for *Gymnomuræna*).

Megaderia Rafinesque, loc. cit., 93 (substitute for *Echidna* Forster).

Molari Richardson, Voy. *Erebus* and *Terror*, 1844, 79 (*Muræna ophis* = *Echidna nebulosa*).

Pæcilophis Kaup, Apodal Fishes, 1856, 98 (*Gymnothorax catenatus* Bloch).

652. *Echidna catenata* (Bloch).

West Indies, from Bermuda to Surinam; our specimens from Santa Lucia.

Muræna seu conger brasiliensis Seba, Thesaurus, II, 1738, 72, pl. 69, figs. 4, 5, Brazil.

Gymnothorax catenatus Bloch, Naturgesch. Ausl. Fische, XII, 1795, 74, pl. 415, fig. 1, Coromandel; an error.

Muræna sordida Cuvier, Règne Anim., ed. 1, 1817, 233, after Seba.

Murænophis catenula Lacépède, Hist. Nat. Poiss., V, 1803, 628 and 641, Palmerston Island; after Bloch.

Echidna fuscomaculata Poey, Repertorio, II, 1868, 263, Cuba.

Echidna flavoscripta Poey, loc. cit., 264, Cuba.

653. *Echidna nocturna* (Cope).

Pacific coast of Mexico, the two known specimens from the Rio Grande, in Costa Rica and from Cape San Lucas.

Pæcilophis nocturnus Cope, Rept. U. S. Geol. Surv. Mont., 1871 (1872), 474, Rio Grande at San José, Costa Rica.

654. *Echidna scabra* Garman

Cocos Island.

Echidna scabra Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 314, Cocos Island.

655. *Echidna cocosa* Garman.

Cocos Island.

Echidna cocosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 313, Cocos Island.

656. *Echidna chionostigma* Fowler.

Gulf of California (?).

Echidna chionostigma Fowler, Proc. Acad. Nat. Sci. Phila., LXIV, 1912, 28; supposed to be from the Gulf of California.

Genus 243. UROPTERYGIUS Rüppell.

Gymnomuræna Lacépède, Hist. Nat. Poiss., V, 1803, 648 (*G. doliata* Lacépède); restricted first by Kaup, in 1856, to *doliata*, which is a species of *Echidna*.

Ichthyophis Lesson, Voy. *Coquille*, II, 1830, 120 (*I. pantherinus* Lesson); not of Fitzinger, 1829, a genus of reptiles.

Uropterygius Rüppell, Neue Wirbelthiere, Fische, 1835, 83 (*Nebrius concolor* Rüppell).

Murænoblenna Kaup, Apodal Fishes, 1856, 67, (*Ichthyophis tigrina* Lesson); not of Lacépède, 1803, which is *Myxine*.

Scutica Jordan and Evermann, Fish. North and Mid. Amer., 1896, 403, (*Uropterygius necturus* Jordan and Gilbert).

Subgenus SCUTICA Jordan and Evermann.

657. *Uropterygius necturus* (Jordan and Gilbert).

Gulf of California.

Gymnomuræna nectura Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 356, Cape San Lucas.

Genus 244. CHANNOMURÆNA Richardson.

Channo-Muræna Richardson, Voy. *Erebus* and *Terror*, 1844, 96 (*Ichthyophis vittata* Richardson).658. *Channomuræna vittata* (Richardson).

Coast of Cuba.

Raro Parra, Dif. Piezas Hist. Nat., 1780, 66, pl. 30, fig. 3, Habana.*Ichthyophis vittatus* Richardson, Voy. *Sulphur*, Fishes, 1844, 114, pl. 53, figs. 7-9; locality uncertain.*Channomuræna cubensis* Poey, Repertorio, II, 1867, 266, pl. 3, fig. 6, Cuba.

Order U. LYOMERI

Family 81. SACCOPHARYNGIDÆ. Gulpers

Genus 245. SACCOPHARYNX Mitchill.

Saccopharynx Mitchill, Ann. Lye. Nat. Hist. N. Y., 1824, 86 (type afterwards called *S. flagellum* Mitchill).*Ophiognathus* Harwood, Philos. Trans., 1827, 277 (*O. ampullaceus* Harwood).659. *Saccopharynx ampullaceus* (Harwood).

Atlantic.

Ophiognathus ampullaceus Harwood, Philos. Trans., 1827, 52, Atlantic.
Saccopharynx flagellum Cuvier, Règne Anim., ed. 2, 1829, 355, Atlantic; after Mitchill.*Saccopharynx chordatus* Storer, Synopsis, 1846, 237, open Atlantic; after Mitchill.

Family 82. EURYPHARYNGIDÆ. Swallowers

Genus 246. GASTROSTOMUS Gill and Ryder.

Gastrostomus Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 271 (*G. bairdii* Gill and Ryder).660. *Gastrostomus bairdii* Gill and Ryder.

Deep water off Newfoundland Banks and Davis Strait.

Gastrostomus bairdii Gill and Ryder, Proc. U. S. Nat. Mus., VI, 1883, 271, off the Grand Banks of Newfoundland.661. *Gastrostomus pacificus* Bean.

Pacific Ocean in deep water.

Gastrostomus pacificus Bean, Smiths. Misc. Coll., XLV, 1904, 254, fig. 31; halfway between Midway Island and Guam.

Series OSTARIOPHYSI

Order V. HETEROGNATHI

Family 83. CHARACINIDÆ. Characins

Genus 247. PHENAGONIATES Eigenmann and Wilson.

Phenagoniates Eigenmann and Wilson, Indiana Univ. Studies, XIX, 1914, 2 (*P. wilsoni* Eigenmann=*Raboides macrolepis* Meek and Hildebrand).662. *Phenagoniates macrolepis* (Meek and Hildebrand).

Atlantic slope of Panama.

Raboides macrolepis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 84, Rio Cupe, Boca de Cupe, Tuyra River Basin.

Genus 248. COMPSURA Eigenmann.

Compsura Eigenmann, Mem. Carnegie Mus., VII, 1915, 60 (*Compsura heterura* Eigenmann).

663. *Compsura gorgonæ* (Evermann and Goldsborough).

Both slopes of Panama.

Cheirodon gorgonæ Evermann and Goldsborough, Proc. Biol. Soc. Wash., XXII, 1909, 99, figs. 1, 3, Gorgona, Atlantic slope, Panama Canal Zone.

Genus 249. *PSEUDOCHEIRODON* Meek and Hildebrand.

Pseudocheirodon Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 275 (*P. affinis* Meek and Hildebrand).

664. *Pseudocheirodon affinis* Meek and Hildebrand.

Both slopes of Panama.

Cheirodon insignis Evermann and Goldsborough, Proc. Biol. Soc. Wash., XXII, 1909, 98, Tabernilla, Atlantic slope; not of Steindachner.

Pseudocheirodon affinis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 275, Pl. XVIII, Rio Gatun, Monte Liria, Canal Zone, Panama.

Genus 250. *GEPHYROCHARAX* Eigenmann.

Gephyrocharax Eigenmann, Indiana Univ. Studies, No. 16, 1912, 23 (*G. chocöensis* Eigenmann).

665. *Gephyrocharax atricaudatus* (Meek and Hildebrand).

Both slopes, Canal Zone, Panama.

Deuterodon atricaudata Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 68, Rio Frioles, Canal Zone.

Gephyrocharax atricaudata Eigenmann, Indiana Univ. Studies, No. 20, 1914, 41, Panama Canal Zone.

666. *Gephyrocharax intermedius* Meek and Hildebrand.

Rio Chama, Panama.

Gephyrocharax intermedius Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 278, Rio Chama.

Genus 251. *ASTYANAX* Baird and Girard.

Astyanax Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 26 (*A. argentatus* Baird and Girard = *Tetragonopterus mexicanus* Filippi).

Pacilurichthys Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 417 (*P. brevoorti* Gill).

All the species mentioned below belong to the subgenus or genus *Astyanax*, distinguished from *Tetragonaptenes* Cuvier by the absence of teeth on the maxillary and by the shorter anal of less than 40 rays.

667. *Astyanax mexicanus* (Filippi).

Rio Balsas and Rio Tehuacan to tributaries of the Rio Grande in Texas, the northernmost species of the multitude of Characins.

Tetragonopterus mexicanus Filippi, Guerin's Rev. Mag. Zool., 1853, 166, Mexico.

Astyanax argentatus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 27, Comanche Spring and Brownsville, Tex.

Tetragonopterus fulgens Bocourt, Ann. Sci. Nat. Zool., IX, 62, 1868.

Tetragonopterus nitidus Vaillant and Pellegrin, Bull. Mus. Hist. Nat. Paris, 1904, 324.

Tetragonopterus brevimanus Günther, Cat., V, 1864, 325, Yzabel; Rio San Geronimo, Guatemala.

668. *Astyanax æneus* (Günther).

Oaxaca, Mexico, and Rio Chagres, and other streams about Panama, south to Brazil.

Tetragonopterus æneus Günther, Proc. Zool. Soc. Lond., 1860, 319, Oaxaca, Mexico.

Tetragonopterus microphthalmus Günther, Cat., V, 1864, 324, Lake Amatitlan, Guatemala; Rio Rimac.

Tetragonopterus panamensis Günther, loc. cit., 324, Pacific coast of Panama; Yzabel.

Tetragonopterus humilis Günther, loc. cit., 327, Lake Amatitlan, Guatemala.

Tetragonopterus ærstedii Krøyer, in Lütken, Ict. Bidrag., III, 1874, 229, Rio San Juan, Nicaragua.

669. *Astyanax petenensis* (Günther).
Nicaragua to western Ecuador; southeast to Argentine Republic.
Tetragonopterus petenensis Günther, Cat., V, 1864, 326, Lake Peten, Nicaragua.
670. *Astyanax scabripinnis* (Jenyns).
Jamapa, Mexico, to Rio Janeiro.
Tetragonopterus scabripinnis Jenyns, Voy. *Beagle*, Zool., Fishes, 1842, 125, Rio Janeiro, Brazil.
671. *Astyanax macrophthalmus* (Regan).
Streams of eastern Mexico.
Tetragonopterus macrophthalmus Regan, Biol. Centrali-Amer., 1915, 171, eastern Mexico; Monzorangi, Vera Cruz.
672. *Astyanax nasutus* Meek.
Astyanax nasutus Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 108, Lake Managua, Nicaragua.
673. *Astyanax fasciatus* (Cuvier).
Coasts of Brazil, from Para to Napo and on the Pacific side from Panama to Ecuador.
Tetragonopterus fischeri Steindachner, Flussfische Südamerikas, I, 1879, 166, Mamo River at Chepo, Colombia.
674. *Astyanax ruberrimus* Eigenmann.
Panama, both slopes.
Astyanax ruberrimus Eigenmann, Indiana Univ. Studies, XVIII, 1913, 25, Isthmeria, Atlantic slope.
675. *Astyanax brevoortii* (Gill).
Island of Trinidad.
Pacilurichthys brevoortii Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 417, Trinidad.
Pacilurichthys tæniurus Gill, loc. cit., 418, Trinidad.
Pacilurichthys pulcher Gill, loc. cit., 419, Trinidad.
- Genus 252. **BRYCONAMERICUS** Eigenmann. .
Bryconamericus Eigenmann, Ann. Carnegie Mus., IV, 1907, 139, (*B. exodon* Eigenmann).
676. *Bryconamericus emperador* (Eigenmann and Ogle).
Streams of both slopes, Panama.
Astyanax emperador Eigenmann and Ogle, Proc. U. S. Nat. Mus., XXXIII, 1907, 26, Empire Station, Panama.
677. *Bryconamericus cascajalensis* Meek and Hildebrand.
Panama.
Bryconamericus cascajalensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 284, Rio Cascajal, Puerto Bello, Panama.
- Genus 253. **HEMIBRYCON** Günther.
Hemibrycon Günther, Cat., V, 1864, 318 (*Tetragonopterus (Hemibrycon) polyodon* Günther).
678. *Hemibrycon dariensis* Meek and Hildebrand.
Basin of Rio Tuyra, Panama.
Hemibrycon dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 285, Pl. XX, mouth of Rio Yape, Panama.
- Genus 254. **HYPHESOBRYCON** Durbin.
Hyphessobrycon Durbin, in Eigenmann, Bull. Mus. Comp. Zool., LII, 1908, 100, (*Hemigrammus compressus* Meek).
Dermatocheir Durbin, Ann. Carnegie Mus., 1909, 55 (*D. calablepta* Durbin).
679. *Hyphessobrycon panamensis* Durbin.
Rio Chagres Basin, Panama.
Hyphessobrycon panamensis Durbin, in Eigenmann, Bull. Mus. Comp. Zool., LII, 1908, 101, Rio Boqueron, Atlantic slope, Panama.
Hemigrammus minutus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 67, Agua Clara, Panama, Atlantic side of Isthmus of Panama.

Genus 255. HEMIGRAMMUS Gill.

Hemigrammus Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 420 (*H. unilineatus* Gill).

680. Hemigrammus unilineatus (Gill).

Streams of Trinidad.

Pæcilurichthys unilineatus Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1854, 420, Trinidad.

Genus 256. CREAGRUTUS Günther.

Creagrutus Günther, Cat., V, 1864, 339 (*Leporinus mulleri* Günther).

681. Creagrutus notropoides Meek and Hildebrand.

Rio Chagres, Panama.

Creagrutus notropoides Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 68, Rio Indio, Chagres basin.

682. Creagrutus simus Meek and Hildebrand.

Rio Tuyra Basin, Panama.

Creagrutus simus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 85, Rio Cupe, Cituro, Panama.

Genus 257. RÆBOIDES Günther.

Ræboides Günther, Cat., V, 1864, 347 (*Epicyrtus microlepis* Reinhardt).

683. Ræboides guatemalensis (Günther).

Rio Chagres and streams of Guatemala.

Anacyrtus guatemalensis Günther, Cat., V, 1864, 347, Rio Chagres; Huamuchal.

684. Ræboides salvadoris Hildebrand. Plateado; Sardina; Alma seca; Ulnina.

Lakes Guija and Metapan and Rio Sucio and Lempa, El Salvador.

Ræboides salvadoris Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 246, fig. 9, Rio Sucio, Sitio del Niño.

685. Ræboides occidentalis Meek and Hildebrand.

Pacific slope of Panama and southward.

Ræboides occidentalis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 293, Pl. XXIII, Rio Cardenas, Corozal, Panama.

Genus 258. BRYCON Müller and Troschel.

Brycon Müller and Troschel, Horæ Ichth., I, 1845, 15 (*B. falcatus* Müller and Troschel).

Chalcinopsis Kner, Sitzungs. Akad. Wiss. München, 1863, 226 (*C. striatulus* Kner).

Megalobrycon Günther, Proc. Zool. Soc. Lond., 1869, 423 (*Brycon cephalus* Günther).

686. Brycon striatulus (Kner).

Rio Chagres and streams about Panama.

Chalcinopsis striatulus Kner, Sitzungs. Akad. Wiss. München, 1863, 226, Panama.

Chalcinopsis chagresensis Kner, loc. cit., 1863, 226, Rio Chagres.

687. Brycon guatemalensis Regan.

Brycon guatemalensis Regan, Biol. Centrali-Amer., 1908, 168, lakes and streams of Guatemala and Nicaragua.

688. Brycon petrosus Meek and Hildebrand. Pipon.

Chagres River basin, Atlantic slope of Panama.

Brycon petrosus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 84, Pl. XXIV, 1916; upper Chagres, Panama.

689. Brycon dentex Günther.

Yucatan to Ecuador.

Brycon dentex Günther, Proc. Zool. Soc. Lond., 1860, 240, Esmeraldas, Ecuador.

690. Brycon argenteus Meek and Hildebrand.

Rio Charrera, and in Rio Bayano and Rio Tuyra basins, Pacific slope of Panama.

Brycon argenteus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 84, Pl. XXV, 298, 1916; Rio Aruza, Aruza, Panama.

691. *Brycon oligolepis* Regan.

Streams of Panama.

Brycon oligolepis Regan, Ann. Mag. Nat. Hist., IX, 1913, 462, Rio Condoto, Panama.**Genus 259. BRAMOCHARAX Gill.***Bramocharax* Gill, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 189 (*B. bransfordi* Gill).**692. *Bramocharax bransfordi* Gill.**

Lake Nicaragua.

Bramocharax bransfordi Gill, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 190, Lake Nicaragua.**693. *Bramocharax elongatus* Meek. *Sabalito*.***Bramocharax elongatus* Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 110, Lake Managua, Nicaragua.**Genus 260. PIABUCINA Cuvier and Valenciennes.***Piabucina* Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 122 (161) (*P. erythrinoides* Cuvier and Valenciennes).**694. *Piabucina panamensis* Gill.**

Tripoli, Atlantic slope of the Isthmus of Panama.

Piabucina panamensis Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876, 336, Rio Tripoli, Isthmus of Panama.**695. *Piabucina festæ* Boulenger.**

Panama.

Piabucina festæ Boulenger, Bull. Mus. Torino, XIV, 1899, 346, I, Rio Sabina, Panama.**Genus 261. HOPLIAS Gill.***Macrodon* Müller, in Wiegmann's Archiv, 1843 163, (*Macrodon trahira* = *Synodus malabaricus* Schneider); name preoccupied in *Sciænidæ*.*Hoplias* Gill, Proc. U. S. Nat. Mus., XXVI, 1903, 1016 (*Synodus malabaricus* Schneider).**696. *Hoplias malabaricus* (Bloch).**

Rio Tuyra Basin; both slopes of Colombia; Ecuador, and south to Brazil.

Esox malabaricus Bloch, Naturgesch. Ausl. Fische, pt. 8, 1794, 149, pl. 392, Tranquebar; locality wrongly given.*Macrodon tereira* Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 508, Bahia; San Francisco; Amazon; Maracaibo.*Erythrinus trahira* Agassiz, in Spix, Pisc. Brasil., 1829, pl. 18, Bahia; San Francisco; Amazon; Maracaibo.*Erythrinus macrodon* Agassiz, loc. cit., 43, pl. 18, Alma, Prov. Bahia, San Francisco.*Erythrinus microcephalus* Agassiz, loc. cit., 44, San Francisco.*Erythrinus brasiliensis* Agassiz, loc. cit., 45, pl. 20, Peruaguacu.*Macrodon auritus* Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 519, Montevideo.*Macrodon teres* Cuvier and Valenciennes, loc. cit., 521, Lake Maracaibo.*Macrodon patana* Cuvier and Valenciennes, loc. cit., 522, Cayenne.*Macrodon aimara* Cuvier and Valenciennes, loc. cit., 586, Cayenne.*Macrodon ferox* Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 51, Trinidad.**697. *Hoplias microlepis* (Günther).**

Panama to Ecuador.

Macrodon microlepis Günther, Cat., V, 1864, 282, western Ecuador, Guatemala.**Family 84. GASTEROPELICIDÆ****Genus 262. GASTEROPELECUS Gronow.***Gasteropelecus* Gronow, Mus. Ichth., II, 1763, 7 (type given in Gen. Fish. as *Clupea sternica* L.).**698. *Gasteropelecus maculatus* Steindachner. *Peche-peche*.**

Rio Mamoni, near Panama.

Gasteropelecus maculatus Steindachner, Flussfische Südamerikas, 1879, 168, Rio Mamoni, at Chepo, Panama.

699. *Gasteropelecus sternicla* Pallas.

Surinam; Brazil; Essequibo.

Gasteropelecus sternicla Pallas, Spic. Zool., 1780, fasc. 8, p. 50, tab. 3, fig. 4.**Family 85. XIPHOSTOMIDÆ****Genus 263. CTENOLUCIUS Gill.***Ctenolucius* Gill, Suppl., Proc. Acad. Nat. Sci. Phila., XIII, 1861, 8 (*Luciocharax insculptus* Steindachner).*Luciocharax* Steindachner, Denkschr. Akad. Wiss. Wien, XXXIX, 1878 (1879), 67 (*L. insculptus* Steindachner).**700. *Ctenolucius insculptus* (Steindachner).**

Rio Magdalena and Rio Momoni near Panama.

Luciocharax insculptus Steindachner, Denkschr. Akad. Wiss. Wien, XXXIV, 1878 (1879), 67 Rio Magdalena, and Rio Mamoni near Panama.**701. *Ctenolucius beani* (Fowler).**

Pacific coast of Panama; both slopes of Colombia.

Beloncharax beani Fowler, Proc. Acad. Nat. Sci. Phila., LVIII, 1906, 464, Rio Truando, a tributary of Rio Atrato, Panama.*Luciocharax striatus* Boulenger, Ann. Mag. Nat. Hist., ser. 8, VII, 1911, 312, Boca de Calmia, Choco.**Family 86. ANOSTOMIDÆ. (Curimatidæ)****Genus 264-265. CURIMATA Walbaum.***Curimata* Walbaum, Artedi Pisc., 1792, 80 (*Salmo marcgravii* Walbaum, based on *Charax maxilla superiore longiore* Gronow, which is *Salmo cyprinoides* Linnaeus).*Les Curimates* Cuvier, Règne Anim., ed. 1, II, 1817, 165 (*Salmo edentulus* Bloch).*Curimatus* of authors generally; altered spelling.*Curimatella* Eigenmann and Eigenmann, Ann. N. Y. Acad. Sci., IV, 1889, 415 (*C. lepidurus* Eigenmann and Eigenmann).*Semilapicus* Eigenmann and Eigenmann, loc. cit., 415 (*Curimatus spilurus* Günther).**701a. *Curimata magdalenæ* Steindachner. *Sardina blanca*.**

Rio Magdalena and Rio Mamoni, Colombia.

Curimatus magdalenæ Steindachner, Denkschr. Akad. Wiss. Wien, XXXIX, 1878 (1879), 34, Rio Magdalena, Colombia.**Family 87. HEMIODONTIDÆ****Genus 266. CHARACIDIUM Reinhardt.***Characidium* Reinhardt, Overs. Dansk. Forh. Kjøbenhavn, 1866, 56, (*C. fasciatum* Reinhardt).**702. *Characidium marshi* Breder.**

Tuyra Basin, Pacific slope of Panama.

Characidium marshi Breder (C. M.), Amer. Mus. Novitates, CLXXX, July 5, 1925, 5, fig. 5, Rio Sueubti, Darien, Panama.**Genus 267. APAREIODON Eigenmann.***Apareiodon* Eigenmann, Ann. Carnegie Mus., X, 1916, 71 (*Parodon piracicabæ* Eigenmann).**703. *Apareiodon compressus* Breder.**

Tuyra Basin, Pacific slope of Panama.

Apareiodon compressus C. M. Breder, jr., Amer. Mus. Novitates, CLXXX, July 5, 1925, 4, fig. 3, 4, Rio Chucunaque, Panama.**704. *Apareiodon dariensis* (Meek and Hildebrand).**

Rio Cupe, Panama.

Parodon dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 83, Pl. XVII, 1916, Rio Cupe, Pacific slope of Panama.

Order W. GYMNONOTI

Family 83. GYMNOTIDÆ

Genus 268. GYMNOTUS Linnæus.

Gymnotus Linnæus, Syst. Nat., Ed. X, 1758, 246 (*G. carapo* L.).

Carapus Rafinesque, Indicc, 37, 1810, 57 (*Gymnotus acus* Linneus, prior to *Fierasfer* Cuvier, not *Carapus* Cuvier=*Giton* Kaup).

Carapus Müller and Troschel, Horæ Zool., III, 1849, 13 (*Gymnotus fasciatus* Pallas=*Gymnotus carapo* L.).

705. *Gymnotus carapo* Linnæus.

Carapo Marcgrave, Hist. Pisc. Brasil., 1648, 170, Brazil.

Gymnotus carapo Linnæus, Syst. Nat., Ed. X, 1758, 246.

Gymnotus fasciatus Pallas, Spic. Zool., VII, 1769, 35, fresh waters of America; anal rays about 180.

Gymnotus albus Pallas, loc. cit., 36, Surinam.

Gymnotus putaol Lacépède, Hist. Nat. Poiss., II, 1801, 176, Brazil.

Genus 269. APTERONOTUS Lacépède.

Apteronotus Lacépède, Hist. Nat. Poiss., II, 1800, 208 (*A. passan* Lacépède=*Gymnotus albifrons* L.).

Sternarchus Schneider, Syst. Ichth., Bloch, 1801, 497 (*Gymnotus albifrons* L.).

Memarchus Kaup in Duméril, Ichth. Anal., 1856, 201 (*Gymnotus albifrons* L.).

706. *Apteronotus rostratus* (Meek and Hildebrand).

Streams of Panama, in Atlantic drainage, and of Colombia (Rio Cauca).

Stenarchus rostratus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 85, Rio Grande near Cana, Panama.

Genus 270. STERNOPYGUS Müller and Troschel.

Sternopygus Müller and Troschel, Horæ Zool., III, 1849, 13 (*Gymnotus macrurus* Bloch and Schneider).

Carapus Cuvier, Règne Anim., Ed. I, 1817, 237 (*Gymnotus macrourus* Bloch and Schneider); not *Carapus* Rafinesque, 1810.

Carapo Oken, Isis, 1817, 1183; after Cuvier.

Giton Kaup, in Duméril, Ichth. Anal., 1856, 201 (*Gymnotus fasciatus* Pallas).

707. *Sternopygus dariensis* Meek and Hildebrand.

Streams of Panama, Atlantic slope.

Sternopygus dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 309, Rio Tuyra at Marrigante.

Genus 271. HYPOPOMUS Gill.

Hypopomus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 152 (*Rhamphichthys mulleri* Kaup).

Brachyrhamphichthys Günther, Cat., VIII, 1890, 6 (*Rhamphichthys artedi* Kaup).

708. *Hypopomus brevirostris* (Steindachner).

Panama, on both slopes to Brazil and Rio de la Plata.

Rhamphichthys brevirostris Steindachner, Sitzungsber. Akad. Wiss. Wien, LVIII, 1868, 254, fig. 2, Garapore, Amazon, et Santarem.

Hypopomus occidentalis Regan, Ann. Mag. Nat. Hist., XIV, 1914, (8), 32, Condoto River, Colombia.

Genus 272. EIGENMANNIA Jordan and Evermann.

Cryptops Eigenmann, Ann. N. Y. Acad. Sci., VII, 1894, 626 (*Sternopygus humboldti* Steindachner); name preoccupied.

Eigenmannia Jordan and Evermann, Fish. North and Mid. Amer., 1896, 341 (*Sternopygus humboldti* Steindachner=*Sternarchus virescens* Valenciennes).

709. *Eigenmannia virescens* (Valenciennes).

Brazil, north in Atlantic drainage to Panama.

Sternarchus virescens Valenciennes, D'Orbigny Voyage, V, 1847, 11.

Sternopygus lineatus Müller and Troschel, Schomburgk's Reise, III, 1848, 640, British Guiana.

Sternopygus tumifrons Müller and Troschel, Horæ Zool., III, 1849, 14.

Sternopygus humboldti Steindachner, Denkschr. Akad. Wiss. Wien, 1878, 55, Rio Magdalena.

Order X. EVENTOGNATHI. Carps

Family 89. CATOSTOMIDÆ. Suckers and buffalofishes

Genus 273. CYCLEPTUS Rafinesque. *Blackhorse*.

Cycleptus Rafinesque, Jour. Phys., LXXXVIII, 1819, 421 (*C. nigrescens* Rafinesque = *Catostomus elongatus* LeSueur).

Rhythidostomus Heckel, Fisch. Syriens, in Russegger's Reisen, 1842, 1023 (*Catostomus elongatus* LeSueur).

710. *Cycleptus elongatus* (LeSueur). *Blackhorse*; *Gourdsseed sucker*; *Missouri sucker*; *Suckerel*.

Mississippi valley; rather common in large streams.

Catostomus elongatus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 103, Ohio River.

Cycleptus nigrescens Rafinesque, Jour. Phys., LXXXVIII, 1819, 421, Ohio River.

Genus 274. MEGASTOMATOBUS Fowler. *Big-mouthed buffalofish*.

Megastomatobus Fowler, Proc., Acad. Nat. Sci. Phila., LXV, 1913, 45 (*Sclerognathus cyprinella* Cuvier and Valenciennes, the chef de filo of these authors for *Sclerognathus* being *Sclerognathus cyprinus*).

Ichthyobus Agassiz, Amer. Jour. Sci. Arts, 1855, 192 (*I. bubalus* Agassiz; not *Catostomus bubalus* Rafinesque; revised spelling of *Ictiobus*).

711. *Megastomatobus cyprinella* (Cuvier and Valenciennes). *Redmouth buffalofish*; *Common buffalofish*; *Bigmouth buffalo*; *Gourdsseed buffalo*.
Mississippi Valley to Red River of the North; generally abundant in larger streams.

Sclerognathus cyprinella Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 355 (477), Lake Pontchartrain, La.

Genus 275. ICTIOBUS Rafinesque. *Buffalofishes*.

Ictiobus Rafinesque, Ichth. Ohiensis, 1820, 55 (*Ambodon bubalus* Rafinesque).

Bubalichthys Agassiz, Amer. Jour. Sci. Arts, XVIII, 1855, 192 (*Carpiodes urus* Agassiz).

Subgenus BUBALICHTHYS Agassiz.

712. *Ictiobus urus* (Agassiz). *Mongrel buffalo*; *Round buffalo*; *Black buffalo*, *Chopper*.

Mississippi Valley; less common than the others in the large streams; the largest and least common of the buffalo fish.

?*Carpiodes niger* Rafinesque, Ichth. Ohiensis, 1820, 56, Ohio River; may be *M. cyprinella*.

Carpiodes urus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 355, Tennessee River, Ala.

Bubalichthys urus Agassiz, loc. cit., Ohio River.

?*Bubalichthys niger* Agassiz, loc. cit., 193, Ohio River.

?*Bubalichthys bonasus* Agassiz, loc. cit., 195, Osage River, Mo.

Subgenus ICTIOBUS Rafinesque.

713. *Ictiobus bubalus* (Rafinesque). *Smallmouth buffalo*; *Razor-backed buffalo*; *Suckermouth buffalo*; *Quillback buffalo*; *Brown buffalo*; *Rooier*.
Mississippi Valley and southward; generally abundant.

?*Ambodon bubalus* Rafinesque, Jour. Phys., LXXXVIII, 1819, 421, Ohio River.

?*Carpiodes taurus* Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 355, Mobile River.

?*Carpiodes vitulus* Agassiz, loc. cit., 356, Wabash River at New Harmony.

Ichthyobus rauchi Agassiz, loc. cit., XIX, 1855, 192.

Ichthyobus cyanellus Nelson, Bull., Ill. Lab. Nat. Hist., I, 1876, 49, Illinois River.

Bubalichthys altus Nelson, in Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 73, Cairo, Ill.

Bubalichthys bubalinus Jordan, Bull. U. S. Nat. Mus., IX, 1877, 50, Ohio River.

Genus 276. CARPIODES Rafinesque. *Carp suckers.*

Carpiodes Rafinesque, Ichth. Ohiensis, 1820, 56 (*Catostomus cyprinus* LeSueur).

Sclerognathus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 472 (*Catostomus cyprinus* and *Sclerognathus cyprinella* Cuvier and Valenciennes; restricted to the former by Agassiz, 1854, to the latter by Günther, 1868).

714. *Carpiodes cyprinus* (LeSueur). *Carp sucker; American carp; Carp; Quillback.*
Streams about Chesapeake Bay; common in the Chesapeake and Potomac, rare in the Delaware.
Catostomus cyprinus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 91, Elk River and other tributaries of Chesapeake Bay.
Carpiodes vacca Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 356, Susquehanna River.
715. *Carpiodes carpio* (Rafinesque). *Carp sucker; Common river carp; Sucker.*
Ohio Valley and southwest to central Texas; generally abundant and variable.
Catostomus carpio Rafinesque, Ichth. Ohiensis, 1820, 56, falls of the Ohio River.
Carpiodes nummifer Cope, Proc. Amer. Phil. Soc., XI, 1870, 484, Wabash River.
716. *Carpiodes cutisanserinus* Cope.
Allegheny Basin.
Carpiodes cutisanserinus Cope, Proc., Amer. Phil. Soc. Phila., XI, 1870, 481, Kiskiminitas River, Pennsylvania (Allegheny Basin).
Carpiodes selene Cope, loc. cit., 1870, 41; supposed to be from Root River, Mich.
717. *Carpiodes difformis* Cope. *Blunt-nosed river carp; Sucker.*
Ohio valley and westward; generally common.
Carpiodes difformis Cope, Proc., Amer. Phil. Soc., XI, 1870, 480, Wabash River.
718. *Carpiodes bison* Agassiz.
Osage River.
Carpiodes bison Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 356, Osage River, Mo.
719. *Carpiodes thompsoni* Agassiz. *Lake carp; Drum; Shad* (Sandusky, Ohio).
Great Lakes region from Lake Champlain to Lake of the Woods, chiefly northward.
Carpiodes thompsoni Agassiz, Amer. Jour. Sci. Arts, XVIII, 1855, 191, Lake Champlain.
720. *Carpiodes velifer* (Rafinesque). *Silver carp; Quillback; Spearfish; Sailfish; Skimback; Sailing sucker; Sailorfish.*
Mississippi Valley and westward to the upper Missouri; more common northward.
Catostomus velifer Rafinesque, Ichth. Ohiensis, 1820, 56, Ohio.
Carpiodes damalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 170, Milk River, Mont.
Carpiodes grayi Cope, Proc., Amer. Phil. Soc., XI, 1870, 482, Western States.
721. *Carpiodes tumidus* Baird and Girard. *Metaltote; Buffalo.*
Lowland streams and lagoons, from the Rio Grande to the Rio Panuco and Tampico
Carpiodes tumidus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 28, Rio Grande at Fort Brown, Tex.; perhaps not separable from *C. velifer*.
722. *Carpiodes labiosus* Meek.
Streams of eastern Mexico.
Carpiodes labiosus Meek, Field Col. Mus., Zool., V, 1904, 29, fig. 6, Valles, San Luis Potosi, Mexico.

- 723. *Carpiodes elongatus* Meek.**
Streams of the east coast of Mexico.
Carpiodes elongatus Meek, Field Col. Mus., Zool., V, 1904, 28, fig. 5,
Rio San Juan, Rio Conchos, and Rio Sarto Maruta in Tamaulipas,
Linares, Nueva Leon.
- 724. *Carpiodes microstomus* Meek.**
Tributaries of the Rio Grande, on the Mexican plateau.
Carpiodes microstomus Meek, Field Col. Mus., Zool., V, 1904, 27, fig.
4, Rio Conchos in Chihuahua.
- 725. *Carpiodes meridionalis* (Günther).**
Southern Mexico and Guatemala.
Sclerognathus meridionalis Günther, Cat., VII, 1868, 23, Rio Usuma-
cinta, Guatemala.
- Genus 277. NOTOLEPIDOMYZON Fowler.**
Notolepidomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LXV, 1913, 47
(*Pantosteus arizonæ* Gilbert = *Catostomus clarki* Baird and Girard).
- 726. *Notolepidomyzon plebeius* (Baird and Girard).**
Basin of the Rio Grande, Colorado to Chihuahua; Rio Piedras, Rio
Casas Grandes; very common.
Catostomus plebeius Baird and Girard, Proc. Acad. Nat. Sci. Phila.,
VII, 1854, 28, Rio Mimbres, a tributary of Lake Guzman, Chihuahua,
Mexico.
Catostomus (*Acomus*) *guzmaniensis* Girard, loc. cit., VIII, 1856, 173,
Rio Janos, tributary to Lago de Guzman, Chihuahua, Mexico.
Catostomus nebuliferus Garman, Bull. Mus. Comp. Zool., VIII, 1881,
89, Rio Nazas, Coahuila, Mexico.
- 727. *Notolepidomyzon clarkii* (Baird and Girard).**
Rio Gila, Salt River, and their tributaries in Arizona.
Catostomus clarkii Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII,
1854, 27, Rio Santa Cruz, Gila Basin, Ariz.
Pantosteus arizonæ Gilbert, in Jordan and Evermann, Fishes North
and Mid. Amer., 1896, 170, Salt River, Tempe, Ariz.
- 728. *Notolepidomyzon santæ-anæ* (Snyder).**
Streams of southern California.
Pantosteus santæ-anæ Snyder, Proc. U. S. Nat. Mus., XXXIV, 1908,
33, Santa Ana River, at Riverside, Calif.
- 729. *Notolepidomyzon generosus* (Girard). *Mountain sucker.***
Colorado Basin.
Catostomus (*Acomus*) *generosus* Girard, Proc. Acad. Nat. Sci. Phila.,
VIII, 1856, 174, Cottonwood Creek; not in Utah, "no doubt from
Colorado" (Snyder).
- Genus 278. PANTOSTEUS Cope. *Mountain suckers.***
Pantosteus Cope, Wheeler's Surv., V, 1875, 673 (*Minomus platyrhynchus*
Cope).
- 730. *Pantosteus delphinus* (Cope). *Bluehead sucker.***
Mountain streams tributary to the Colorado River in western Colorado
and Wyoming; very abundant.
Minomus delphinus Cope, Hayden's Geol. Surv. Wyo., 1870, 435;
probably Henry Fork of Green River, Wyo.
? *Minomus bardus* Cope, loc. cit., 436; probably Green River, Wyo.
- 731. *Pantosteus platyrhynchus* (Cope).**
Streams of Utah Basin (Provo and Sevier Rivers).
Minomus platyrhynchus Cope, Proc. Am. Phil. Soc., XIV, 1874, 134,
Utah Lake at Provo.
? *Minomus jarrovii* Cope, loc. cit., 135; "near Provo"; the type lost.
- 732. *Pantosteus jordani* Evermann.**
Upper Missouri and Columbia River Basins.
Pantosteus jordani Evermann, Bull. U. S. Fish Com., XII, 1892 (Jan.
27, 1893), 51, fig. on p. 53; Whitewood Creek and other streams of
the Black Hills, S. Dak.

733. *Pantosteus columbianus* Eigenmann.

Columbia Basin.

Pantosteus columbianus Eigenmann, Amer. Nat., Feb. 4, 1893, 151, Columbia River; perhaps identical with *Pantosteus jordani*.**734. *Pantosteus virescens* Cope.**

Tributaries of Lake Bonneville basin of Utah; abundant in Weber and Bear Rivers; largest of the hard-mouthed or mountain suckers.

Pantosteus virescens Cope, Wheeler's Surv., Zool., 1875, 675; by error ascribed to Arkansas River at Pueblo; must have come from the basin of Utah.**735. *Pantosteus lahontan* Rutter.**

Streams of western Nevada; Lahontan Basin.

Pantosteus lahontan Rutter, Bull. U. S. Fish Com., XXII, 1902, 146, with figure; Susan River, a tributary of Honey Lake, Little Truckee River, Prosser Creek; misprint for *lahontan*.**Genus 279. CATOSTOMUS LeSueur. Fine-scaled sucker.***Catostomus* LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 89 (*Cyprinus catostomus* Forster).*Decactylus Rafinesque*, Ichth. Ohiensis, 1820, 60 (*Catostomus bostoniensis* Rafinesque = *Cyprinus commersoni* Lacépède).*Stomacalus Bonaparte*, Fauna Italica, 1840, Fasc. 129 (*Cyprinus catostomus* Forster).*Minomus Girard*, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 173 (*Catostomus insignis* Baird and Girard).*Acomus Girard*, loc. cit., 173 (*Catostomus forsterianus* Richardson = *Cyprinus catostomus* Forster).**Subgenus DECACTYLUS Rafinesque.****736. *Catostomus commersoni* Lacépède. Common sucker; White sucker; Brook sucker; Fine-scaled sucker; Black mullet (Sandusky, Ohio); Fine-scaled mullet; Bay mare.**

Quebec and the Great Lakes to Montana, Colorado, southward to Missouri and Georgia; the commonest of the suckers, excessively abundant from Massachusetts west to Kansas.

Cyprinus commersoni Lacépède, Hist. Nat. Poiss., V, 1803, 503, locality unknown; wrongly accredited to Commerson, the description and figure drawn from an old example long in alcohol.*Cyprinus teres* Mitchell, Trans. Lit. Phil. Soc. N. Y., 1815, 458, New York.*Catostomus communis* LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 95, 106, Delaware River.*Catostomus bostoniensis* LeSueur, loc. cit., 106, Boston.*Catostomus flexuosus* Rafinesque, Ichth. Ohiensis, 1820, 59, Ohio River.*Catostomus reticulatus* Richardson, Fauna Bor.-Amer., Fishes, 1836, 303, Albany River.*Catostomus gracilis* Kirtland, Rept. Zool. Ohio, 1838, 169, Cleveland, Ohio.*Catostomus pallidus* DeKay, New York Fauna: Fishes, 1842, 200, New York.*Catostomus sucklii* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 175, Milk River, Mont.*Catostomus chloropteron* Abbott, loc. cit., XII, 1860, 473, Kansas.? *Catostomus alticolus* Cope, Proc. Amer. Phil. Soc., XIV, 1874, 138, Twin Lake, Colo.*Moxostoma trisignatum* Cope, Wheeler's Surv., V, Zool., 1875, 679, Arkansas River.? *Catostomus utawana* Mather, Twelfth Rept., N. Y. Fish Com., Surv. of Adirondacks, 1884, 36, Blue Mountain Lakes, N. Y.; dwarf form.**737. *Catostomus ardens* Jordan and Gilbert. Mullet of Utah Lake.**

Great basin of Utah and upper Snake River; Idaho; locally abundant.

Catostomus ardens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 464, Utah Lake, Provo, Utah.

738. *Catostomus occidentalis* Ayres. *Sacramento sucker*.
Streams of northern and central California and southern Oregon.
Catostomus occidentalis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 18,
San Francisco.
Catostomus labiatus Ayres, loc. cit., 1855, 32, San Joaquin River, Stock-
ton, Calif.
Catostomus aræopus Jordan, Bull. U. S. Nat. Mus., XII, 1878, 173,
South Fork of Kern River, Calif.
739. *Catostomus tsilcoosensis* Evermann and Meek.
Coastal streams of Oregon.
Catostomus tsilcoosensis Evermann and Meek, Bull. U. S. Fish Com.,
XVII, 1897, 66, fig. 1, Tsilcoos Lake, Lane Co., Oreg.
740. *Catostomus snyderi* Gilbert.
Klamath Basin, California and Oregon.
Catostomus snyderi Gilbert, Bull. U. S. Fish Com., XVII, 1897 (Jan. 6,
1898), 3, Upper Klamath Lake, Oreg.
741. *Catostomus microps* Rutter.
Streams of the lava beds of California.
Catostomus microps Rutter, Bull. U. S. Bur. Fish., XXVII, 1907 (1908),
120, fig. 1; Rush Creek, a tributary of Ash Creek, Aden, Modoc Co.,
Calif.
742. *Catostomus macrocheilus* Girard. *Columbia River sucker*; *Biglip sucker*.
Columbia River Basin, as far up as Flathead Lake, Montana; Upper
Salmon Falls and the headwaters of Salmon River, Idaho.
Catostomus macrocheilus Girard, Proc. Acad. Nat. Sci. Phila., VIII,
1856, 175, Astoria, Oreg.
743. *Catostomus insignis* Baird and Girard.
Gila Basin, Ariz.
Catostomus insignis Baird and Girard, Proc. Acad. Nat. Sci. Phila.,
VII, 1854, 28, Rio San Pedro, Ariz.
Catostomus gila-Kirsch, Proc. U. S. Nat. Mus., XI, 1888, 555, Rio Gila,
Fort Thomas, Ariz.
744. *Catostomus bernardini* Girard.
San Bernardino Creek, a tributary of Rio Yaqui, on the boundary of
Arizona and Sonora.
Catostomus bernardini Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
175, San Bernardino Creek, Ariz.
745. *Catostomus sonoriensis* Meek.
Rivers of Sonora on the Pacific slope.
Catostomus sonoriensis Meek, Field Col. Mus., Zool., Ser. III, No. 6,
May, 1902, 75, Pl. XVI, Rio Paphigochic, Miñaca, Chihuahua,
Mexico.
- Subgenus CATOSTOMUS LeSueur.**
746. *Catostomus catostomus* (Forster). *Long-nosed sucker*; *Northern sucker*;
Red sucker; *Black sucker* (Sandusky, Ohio); *Sturgeon sucker*.
Great Lakes; upper Missouri River; Ohio Basin; West Virginia;
upper Columbia; eastward to Maine and northwestward to Alaska;
very abundant northward.
Cyprinus catostomus Forster, Philos. Trans., LXIII, 1773, 155, tab. 6,
streams about Hudson Bay.
Catostomus longirostrum and *hudsonius* LeSueur, Jour. Acad. Nat. Sci.
Phila., I, 1817, 102, 107, Vermont; after Forster.
Catostomus forsterianus Richardson, Franklin's Jour., 1823, 720, Lake
Huron; Great Slave Lake.
Catostomus aurora Agassiz, Lake Superior, 1850, 360, Lake Superior.
Catostomus nanomyzon Mather, Twelfth Rep., N. Y. Fish Com., Surv.
of Adirondacks, 1884, 36, Big Moose Lake, northern New York;
dwarf form.
747. *Catostomus richardsoni* Harper and Nichols. *Gray sucker*.
Streams of northwestern Canada.
Catostomus richardsoni Harper and Nichols, Bull., Amer. Mus. Nat.
Hist., XLI, 1919, 263, Pl. XV, fig. 1, type locality not designated.

748. *Catostomus griseus* Girard.
Platte River and upper Missouri region.
Catostomus (Acomus) griseus Girard, Proc. Acad. Nat. Sci. Phila., VIII,
1856, 174, Sweetwater Fork of Platte River.
? *Catostomus (Acomus) lactarius* Girard, loc. cit., 174, Milk River, Mont.
749. *Catostomus retropinnis* Jordan.
Northern Montana.
Catostomus retropinnis Jordan, Bull. U. S. Nat. Mus., XII, 1878, 178,
Milk River, Mont.
750. *Catostomus pocatello* Gilbert and Evermann. *Moo-gad-ee of the Fort
Hall Indians.*
Upper Snake River.
Catostomus pocatello Gilbert and Evermann, Bull., U. S. Fish Com.,
XIV, 1894, 189, pl. 21, fig. 1, Ross fork of Snake River, near Pocatello,
Idaho.
751. *Catostomus tahoensis* Gill and Jordan. *Tahoe sucker.*
Lake Tahoe and Humboldt River, Nev.
Catostomus tahoensis Gill and Jordan, in Jordan, Bull., U. S. Nat. Mus.,
XII, 1878, 173, Lake Tahoe, Calif.
752. *Catostomus discobolus* Cope.
Upper Colorado Basin.
Catostomus discobolus Cope, Hayden's Geol. Surv. Wyo., 1870 (1872),
435, Green River, Wyo.
753. *Catostomus chamberlaini* (Rutter).
Chasmistes chamberlaini Rutter, Bull. U. S. Fish Com., XXII, 1902
(1904), 147, Eagle Lake (a lake without outlet in the Lahontan
Basin); apparently a variant of *C. tahoensis*.
754. *Catostomus latipinnis* Baird and Girard. *Flannel-mouthed sucker.*
Rio Colorado and Rio Gila and their tributaries.
Catostomus latipinnis Baird and Girard, Proc. Acad. Nat. Sci. Phila.,
VI, 1853, 388, Rio San Pedro, Gila Basin, Ariz.
755. *Catostomus conchos* Meek.
Catostomus conchos Meek, Field Col. Mus., Zool., III, 1902, 75, Rio
Conchos, Jimenez, Chihuahua, Mexico.
- Genus 280. HYPENTELIUM Rafinesque.**
Hypentelium Rafinesque, Jour. Acad. Nat. Sci. Phila., II, 1818, 421
(*H. macropterus* Rafinesque = *Catostomus nigricans* LeSueur).
Eurystomus Rafinesque, Ichth. Ohiensis, 1820, 59 (*Catostomus megastomus*
Rafinesque), based on an incorrect drawing of *Hypentelium nigricans*.
Hylomyzon Agassiz, Amer. Jour. Sci. Arts, 1855, 205 (*Catostomus nigri-*
cans LeSueur).
756. *Hypentelium nigricans* (LeSueur). *Black sucker; Mud sucker; Hog
sucker; Stoneroller; Toler; Crawl-a-bottom; Hammerhead; Stonelugger;
Hogmolly; Bootleg sucker; Spotted sucker; Niggerhead.*
New York to Minnesota, Kansas, Arkansas, and the Carolinas; abun-
dant in swift or rocky streams.
Catostomus nigricans LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 102,
Lake Erie.
Catostomus maculosus LeSueur, loc. cit., 103, Pipe Creek, Md.
Hypentelium macropterus Rafinesque, loc. cit., I, 1817, 420, Ohio River.
Catostomus xanthopus Rafinesque, Ichth. Ohiensis, 1820, 57, Ohio River.
Catostomus nigricans etowanus Jordan, Ann. Lyc. Nat. Hist. N. Y.,
XI, 1876 (1877), 345, Etowah River, Rome, Ga.
Catostomus megastomus Rafinesque, Ichth. Ohiensis, 1820, 59; based
on incorrect drawing.
Catostomus planiceps Cuvier and Valenciennes, Hist. Nat. Poiss.,
XVII, 1844, 334 (450), 1844, Wabash River.
- Genus 281. THOBUERNIA Jordan and Snyder.**
Thoburnia Jordan and Snyder, Copeia, October 4, 1917, 88 (*Catostomus
rhotacis* Thoburn).

757. *Thoburnia rhothœca* (Thoburn).

Headwaters of Tennessee River.

Catostomus rhothæcus Thoburn, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 181, upper tributaries of Tennessee River; supposed to be from the French Broad River at Wolf Creek, Tenn.

Genus 282. CHASMISTES Jordan.

Chasmistes Jordan, Bull., Hayden's Geol. Surv. Terr., IV, No. 2, 1878, 417 (*C. fecundus* Jordan; not *Catostomus fecundus* Cope and Yarrow = *Chasmistes liorus* Jordan).

Lipomyzon Cope, Amer. Nat., XV, 1881, 59 (*Chasmistes brevirostris* Cope).

Pithecomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LXV, 1913, 54 (*Chasmistes cujus* Cope).

Subgenus LIPOMYZON Cope.

758. *Chasmistes fecundus* (Cope and Yarrow). *Webbug sucker*.

Utah Lake.

Catostomus fecundus Cope and Yarrow, Wheeler's Surv., Zool., V, 1875, 678, Utah Lake.

759. *Chasmistes brevirostris* Cope.

Klamath Lake, Oreg.

Chasmistes brevirostris Cope, Amer. Nat., XIII, 1879, 785, Klamath Lake, Oreg.

760. *Chasmistes stomias* Gilbert.

Upper Klamath Lake, Oreg.

Chasmistes stomias Gilbert, Bull., U. S. Fish Com., XVII, 1897 (1898), 5, text figure, Upper Klamath Lake, Oreg.

761. *Chasmistes liorus* Jordan. *June sucker*.

Utah Lake.

Chasmistes liorus Jordan, Bull., U. S. Nat. Mus., XII, 1878, 249, Utah Lake at Provo, Utah.

762. *Chasmistes cujus* Cope. *Couia*; *Kweewee*; *Quiwee*.

Pyramid Lake, Nevada; locally abundant.

Chasmistes cujus Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 149, Pyramid Lake, Nev.

763. *Chasmistes copei* Evermann and Meek. *Tswam*.

Klamath Lakes, Oreg.

Chasmistes copei Evermann and Meek, Bull., U. S. Fish Com., XVII, 1894 (1898), 70, fig. 3; Pelican Bay, Upper Klamath Lake, Oreg.

Genus 283. DELTISTES Seale.

Deltistes Seale, Proc. Calif. Acad. Sci., ser. 2, VI, 1896, 269 (*Chasmistes luxatus* Cope).

764. *Deltistes luxatus* (Cope). *Tswam*; *Lost River sucker*.

Klamath Lake and River, Oreg; abundant.

Chasmistes luxatus Cope, Amer. Nat., XIII, 1879, 784, Klamath Lake, Oreg.

Catostomus rex Eigenmann, loc. cit., XXV, July, 1891, 667, Lost River, Oreg.

Genus 284. XYRAUCHEN Eigenmann and Kirsch. *Razorback suckers*.

Xyrauchen Eigenmann and Kirsch, Proc. U. S. Nat. Mus., XI, 1888, 556 (*Catostomus cypho* Lockington = *Catostomus texanus* Abbott).

765. *Xyrauchen texanus* (Abbott). *Razorback sucker*; *Humpback sucker*.

Basin of the Colorado and Gila Rivers (not in Texas).

Catostomus texanus Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 473, Colorado and New Rivers, Ariz.

Catostomus cypho Lockington, loc. cit., 1880, 237, Colorado River at mouth of the Gila, Ariz.

Xyrauchen uncompahgre Jordan and Evermann, Bull. U. S. Fish Com., 1889, 26, Uncompahgre River delta, Colo.; young example, probably the same.

Genus 285. ERIMYZON Jordan. *Chub suckers*.

Erimyzon Jordan, Bull. Buffalo Soc. Nat. Hist., III, 1876, 95 (*Cyprinus oblongus* Mitchell).

766. *Erimyzon sucetta* (Lacépède). *Chub; Chub sucker; Creekfish; Creek sucker.*

Coastwise streams, Pennsylvania and south; very abundant southward. *Cyprinus sucetta* Lacépède, Hist. Nat. Poiss., V, 1803, 606, South Carolina.

Moxostoma kennerlyi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 171, Dry Creek, Victoria, Tex.

Moxostoma campbelli Girard, loc. cit., 172, Live Oak Creek and Devil River, Tex.

Moxostoma tenue Agassiz, Amer. Jour. Sci. Arts, 1855, 203, Mobile, Ala.

Erimyzon goodei Jordan, Bull. U. S. Nat. Mus., XII, 1878, 148, St. Johns River, Fla.

767. *Erimyzon oblongus* (Mitchill). *Chub sucker; Sweet sucker; Mullet; Creek fish; Pin minnow.*

Great Lakes region to Maine and the Dakotas, south to Virginia and Oklahoma; very abundant; replacing the deeper-bodied *sucetta* northward; the two probably intergrading.

Cyprinus oblongus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 459, New York.

Catostomus gibbosus LeSueur, Connecticut River, Northampton; *tuberculatus*, Germantown, Pa.; and *vittatus*, Wissahickon River, Pa.; Jour. Acad. Nat. Sci. Phila., I, 1817, 92, 93, 104.

Catostomus fasciolaris Rafinesque, Ichth. Ohiensis, 1820, 58, Ohio River. *Labca elegans*, New York; *esopus*, New York; and *elongatus*, Mohawk River; DeKay, N. Y. Fauna: Fishes, 1842, 192, 195, 394.

Moxostoma claviformis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 171, Coal Creek, Canadian River, Indian Territory [Okla.]

Genus 286. MINYTREMA Jordan. *Spotted suckers.*

Minytrema Jordan, Man. Vert., ed. 2, 1878, 318 (*Catostomus melanops* Rafinesque).

768. *Minytrema melanops* (Rafinesque). *Spotted sucker; Striped sucker; Winter sucker; Sand sucker; Black winter sucker.*

Great Lakes region to North Carolina and west to Texas and Montana; rather common westward.

Catostomus melanops Rafinesque, Ichth. Ohiensis, 1820, 57, Ohio River.

Catostomus fasciatus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 333 (449), Mississippi River.

Moxostoma victoria Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 171, Dry Creek, Victoria, Tex.

Ptychostomus haydeni Girard, loc. cit., 172, Yellowstone River; Missouri River at Fort Pierre, Neb.

Genus 287. MOXOSTOMA Rafinesque. *Redhorse.*

Moxostoma Rafinesque, Ichth. Ohiensis, 1820, 54 (*Catostomus anisurus* Rafinesque).

Teretulus Rafinesque, loc. cit., 57 (*Catostomus aureolus* LeSueur).

Ptychostomus Agassiz, Amer. Jour. Sci. Arts., XIX, 1855, 203 (*Catostomus aureolus* LeSueur).

Moxostoma Jordan; corrected orthography.

769. *Moxostoma papillosum* (Cope). *White mullet.*

Lowland streams, from the Dismal Swamp in Virginia to the Ocmulgee River, Ga.

Ptychostomus papillosus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 470, Catawba and Yadkin Rivers, N. C.

770. *Moxostoma anisurus* (Rafinesque). *White-nosed sucker.*

Ohio River, Great Lakes region and Lake of the Woods; not very common, but widely distributed.

Catostomus anisurus Rafinesque, Ichth. Ohiensis, 1820, 54, Ohio River.

Catostomus carpio Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 457, Lake Ontario, not of Rafinesque.

Ptychostomus velatus Cope, Proc. Amer. Phil. Soc., XI, 1870, 471, Youghiogheny River, Pa.

Moxostoma valenciennesi Jordan, Proc. U. S. Nat. Mus., VIII, 1885, 73; substitute for *Catostomus carpio* Cuvier and Valenciennes; preoccupied.

771. *Moxostoma bucco* (Cope).
Missouri River at St. Joseph.
Ptychostomus bucco Cope, Hayden's Geol. Surv. Wyo., 1870, 437, St. Joseph, Mo.; a doubtful species allied to *M. anisurum*.
772. *Moxostoma pidiense* (Cope).
Great Pedee Basin, the Carolinas.
Ptychostomus pidiensis Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 471, Yadkin River, N. C.
773. *Moxostoma collapsum* (Cope).
Lowland streams of North Carolina.
Ptychostomus collapsus Cope, Proc. Amer. Phil. Soc., XI, 1870, 471, Neuse, Yadkin, and Catawba Rivers, N. C.
774. *Moxostoma coregonus* (Cope). *Blue mullet*.
Catawba and Yadkin Rivers, N. C.
Ptychostomus coregonus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 472, Catawba and Yadkin Rivers.
775. *Moxostoma album* (Cope).
Rivers of North Carolina.
Ptychostomus albus Cope, Proc., Amer. Phil. Soc. Phila., XI, 1870, 472, Catawba River, N. C.
776. *Moxostoma thalassinum* (Cope).
Yadkin River, N. C.
Ptychostomus thalassinus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 472, Yadkin River, N. C.
777. *Moxostoma congestum* (Baird and Girard). *Texas redhorse*.
Streams of Texas.
Catostomus congestus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 27, Rio Salado, Tex.
Ptychostomus albidus Girard, loc. cit., VIII, 1856, 172, Rio San Juan, Monterey, Nuevo Leon, Mexico.
778. *Moxostoma austrinum* (Bean.)
Rio de Santiago, Mexico; known from Michoacan, Mexico (west of Sierra Madre); Rio Lerna at Salamanca.
Myxostoma austrina Bean, Proc. U. S. Nat. Mus., II, 1879, 302, Piedad in Morelia, Michoacan, Mexico.
779. *Moxostoma mascotæ* Regan.
Streams of Jalisco (Pacific drainage), Mexico.
Moxostoma mascotæ Regan, Biol. Centrali-Amer., 1907, 147, Tab. XXIV, fig. 2, Rio Mascota, Mexico.
780. *Moxostoma parvidens* Regan.
Rio Grande Basin.
Moxostoma parvidens Regan, Biol. Centrali-Amer., 1907, 147, Tab. XXIV, fig. 3, Rio Grande at Juarez, Mexico.
781. *Moxostoma aureolum* (LeSueur). *Common redhorse*; *Mullet*; *White sucker*; *Large-scaled sucker*; *Sucker*.
Lake Ontario and Lake Michigan to the Missouri River and Lake of the Woods, south to Arkansas and Georgia; very abundant west of Alleghenies.
Catostomus aureolus LeSueur, Jour., Acad. Nat. Sci. Phila., I, 1817, 95, Lake Erie near Buffalo.
Catostomus duquesnii LeSueur, loc. cit., I, 105, 1817, Ohio River at Pittsburgh, Pa.
Catostomus erythrus Rafinesque, Amer. Month. Mag., III, 1818, 354, 355, Ohio River.
Catostomus oneida DeKay, N. Y. Fauna: Fishes, 1842, 198, Oneida Lake.
Rutilus melanurus Rafinesque, Ichth. Ohiensis, 1820, 51, Ohio River.
Myxostoma euryops Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 348, Oostanaula River, Rome, Ga.; probably a monstrosity of this species.

782. *Moxostoma lesueurii* (Richardson). *Picconou*.
Tributaries of Hudson Bay and westward.
Catostomus lesueurii Richardson, Franklin's Jour., 1823, 1772, Pine Island Lake, British America.
783. *Moxostoma macrolepidotum* (LeSueur). *Mullet; Red mullet; Eastern redhorse; River sucker*.
Streams about Chesapeake and Delaware Bays and southward to North Carolina; east of the Alleghenies.
Catostomus macrolepidotus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 94, Delaware River.
Ptychostomus lachrymalis Cope, Proc., Amer. Phil. Soc., XI, 1870, 474, Neuse River at Newbern, N. C.
784. *Moxostoma robustum* (Cope).
Yadkin River, N. C.
Ptychostomus robustus Cope, Proc. Amer. Phil. Soc., XI, 1870, 473, Yadkin River, N. C.
785. *Moxostoma crassilabre* (Cope).
Streams of eastern North Carolina.
Ptychostomus crassilabris Cope, Proc. Amer. Phil. Soc., XI, 1870, 477, Neuse River near Raleigh, N. C.
786. *Moxostoma conus* (Cope).
Neuse and Yadkin Rivers, N. C.
Ptychostomus conus Cope, Proc. Amer. Phil. Soc., XI, 1870, 478, Yadkin River, N. C.
787. *Moxostoma breviceps* (Cope). *Short-headed redhorse*.
Ohio Valley and Great Lakes region; abundant in Lake Erie.
Ptychostomus breviceps Cope, Proc. Amer. Phil. Soc., XI, 1870, 478, Youghiogheny River, Pa.
788. *Moxostoma pæcilurum* (Jordan).
Southern Mississippi to eastern Texas; Pearl, Tangipahoa, and Sabine Rivers.
Myxostoma pæcilura Jordan, Bull. U. S. Nat. Mus., X, 1877, 66, Tangipahoa River, La.
789. *Moxostoma alleghaniensis* Nichols.
Mountain streams of North Carolina.
Moxostoma alleghaniensis Nichols, Bull. Amer. Mus. Nat. Hist., XXX, 1911, 275, Pl. XI, fig. 1, Marshall, N. C.
- Genus 288. SCARTOMYZON Fowler.
Scartomyzon Fowler, Proc. Acad. Nat. Sci. Phila., LXV, 1913, 59 (*Ptychostomus cervinus* Cope).
790. *Scartomyzon rupiscartes* (Jordan and Jenkins). *Jumpprocks*.
Rivers of the Carolinas and Georgia, from the Catawba to the Chattahoochee; locally abundant.
Moxostoma rupiscartes Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1888, 353, Catawba River at Morgantown, and various other streams, representing *Scartomyzon cervinus* southward.
791. *Scartomyzon cervinus* (Cope). *Jumping mullet; Crawl-a-bottom*.
Rivers of the South Atlantic States, from the James to the Neuse.
Teretulus cervinus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 236, headwaters of the Roanoke and James Rivers, Va.
- Genus 289. PLACOPHARYNX Cope.
Placopharynx Cope, Proc. Amer. Phil. Soc., XI, 1870, 467 (*P. carinatus* Cope).
792. *Placopharynx carinatus* Cope. *White sucker; Big-toothed redhorse*.
Michigan to Tennessee, Georgia, and Arkansas; abundant in large streams, especially in the Ozarks.
Placopharynx carinatus Cope, Proc. Amer. Phil. Soc., XI, 1870, 467, Wabash River.

Genus 290. **LAGOCHILA** Jordan and Brayton. *Rabbitmouth suckers.*

Lagochila Jordan and Brayton, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 280, (*L. lacera* Jordan and Brayton); not *Lagocheilus*, an earlier genus of mollusks.

Quassilabia Jordan and Brayton, Man. Vert., Ed. II, 1878, 406 (*Lagochila lacera* Jordan and Brayton); substitute for *Lagochila*, regarded as preoccupied.

793. **Lagochila lacera** Jordan and Brayton. *Harelip sucker; Cut-lips; Split-mouth sucker; May sucker; Rabbitmouth sucker; Pealip sucker.*

Mississippi Valley; Ozark Mountains; Scioto, Tippecanoe, Clinch, Cumberland, and Chickamauga Rivers, and the White River of Arkansas; nowhere very common.

Lagochila lacera Jordan and Brayton, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 280, Chickamauga River, Ringgold, Ga.

Family 90. CYPRINIDÆ. Daces and minnows

In arranging the genera of this by far the largest natural family of fishes, we have begun the series with the forms having closest affinity with Asiatic and then with European types—these having largely five teeth in the main row on the pharyngeals. Later follow the characteristically American forms, more or less degenerate as compared with the possible European ancestors, the series closing with aberrant forms from the same stock.

Genus 291. **ORTHODON** Girard.

Orthodon Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182 (*Gila microlepidota* Ayres).

794. **Orthodon microlepidotus** (Ayres). *Blackfish.*

Larger rivers and lakes of central and northern California; generally abundant.

Gila microlepidota Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 21, Sacramento and San Joaquin Rivers, Calif.

Genus 292. **ACROCHEILUS** Agassiz. *Chiselmouths.*

Acrocheilus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 96 (*A. alutaceus* Agassiz and Pickering).

795. **Acrocheilus alutaceus** Agassiz and Pickering. *Chiselmouth; Square-mouth; Hardmouth.*

Lakes and rivers of southeastern Oregon; lower Columbia and tributaries as far up as Spokane and Shoshone Falls.

Acrocheilus alutaceus Agassiz and Pickering, Amer. Jour. Sci. Arts, XIX, 1855, 99, Willamette Falls and Walla Walla River, Oreg.

Genus 293. **MYLOCHEILUS** Agassiz.

Mylocheilus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 229 (*M. lateralis* Agassiz and Pickering).

796. **Mylocheilus lateralis** Agassiz and Pickering. *Columbia River chub.*

Columbia and Frazer River Basins; ascending to Flathead Lake and Shoshone Falls.

Mylocheilus lateralis Agassiz and Pickering, Amer. Jour. Sci. Arts, 1855, 231, Columbia River at Fort Vancouver; confused by recent writers with *Leuciscus caurinus* Richardson, which is a near relative of *Richardsonius balteatus*.

797. **Mylocheilus fraterculus** Girard.

Mylocheilus fraterculus Girard, Proc., Acad. Nat. Sci. Phila., VIII, 1856, 169, "Monterey, Calif.," a doubtful record, as no *Mylocheilus* has been yet found in California; scales about 85; 77 in *Mylocheilus lateralis*.

Genus 294. **MYLOPHARODON** Ayres.

Mylopharodon Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 33 (*M. robustus* Ayres = *Mylopharodon conocephalus* Girard).

798. *Mylopharodon conocephalus* (Baird and Girard). *Kaweah chub*.
Sacramento and San Joaquin Rivers, Calif.; southeastern Oregon, Pit
River and Big Valley.
Gila conocephala Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII,
1854, 135, San Joaquin River, Calif.
Mylopharodon robustus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 33,
San Joaquin River, Calif.

Genus 295. **STYPODON** Garman.

Stypodon Garman, Bull. Mus. Comp. Zool., VIII, 1881, 90 (*S. signifer*
Garman).

799. *Stypodon signifer* Garman.

Lago de Parras, an isolated lagoon in Coahuila, Mexico.

Stypodon signifer Garman, Bull. Mus. Comp. Zool., VIII, 1881, 90,
Lago de Parras, Coahuila, Mexico.

Genus 296. **CHROSOMUS** Rafinesque.

Chrosomus Rafinesque, Ichth. Ohiensis, 1820, 47 (*Luxilus erythrogaster*
Rafinesque).

800. *Chrosomus erythrogaster* Rafinesque. *Red-bellied dace*.

New Brunswick to Ohio, Wisconsin, Colorado, and northern Alabama;
St. Lawrence River; chiefly or entirely west of the Alleghenies; very
abundant northward.

Luxilus or *Chrosomus erythrogaster* Rafinesque, Ichth. Ohiensis, 1820,
47, Ohio River.

Chrosomus pyrrhogaster Jordan, Man. Vert., Ed. I, 1876, 284, White
River, Ind.

801. *Chrosomus eos* Cope.

Streams east of the Alleghenies, north to the Susquehanna; scarce.

Chrosomus eos Cope, Proc., Acad. Nat. Sci. Phila., XIII, 1861, 523,
Meshoppen Creek, Susquehanna River, Pa.; perhaps a variation of
Chrosomus erythrogaster.

802. *Chrosomus oreas* Cope.

Headwaters of Roanoke River, and clear tributaries of the Tennessee
River.

Chrosomus oreas Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 233,
head of Roanoke River, Montgomery County, Va.

803. *Chrosomus dakotensis* Evermann and Cox.

Chrosomus dakotensis Evermann and Cox, Rept. U. S. Fish Com.,
XIX, 1895, Crow Creek, Chamberlain, S. Dak.

Genus 297. **LAVINIA** Girard.

Lavinia Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 137 (*L. exili-*
cauda Baird and Girard).

Luxilinus Jordan, Cat. Fishes N. Amer., 1885, 33 (*Laucosomus occi-*
dentalis Baird and Girard); young.

804. *Lavinia exilicauda* Baird and Girard. *Hitch; Chigh*.

Streams of the coast ranges about San Francisco and Monterey;
locally common as far north as Clear Lake, Calif.

Lavinia exilicauda Baird and Girard, Proc., Acad. Nat. Sci. Phila.,
VII, 1854, 137, Sacramento River, Calif.

Leucosomus occidentalis Baird and Girard, loc. cit., VII, 1854, 137, Poso
Creek; Four Creeks, Calif.; young of *L. exilicauda*.

Lavinia harengus Girard, loc. cit., VIII, 1856, 184, Monterey, Calif.

Genus 298. **OXYGENEUM** Forbes.

Oxygeneum Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, 136 (*O. pul-*
verulentum Forbes).

805. *Oxygeneum pulverulentum* Forbes.

Illinois River, Ill.

Oxygeneum pulverulentum Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885,
136, Illinois River, Ill.

Genus 299. **PTYCHOCEILUS** Agassiz. *Squawfish*.

Ptychocheilus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 227 (*P. gra-*
cilis Agassiz=*Cyprinus* (*Leuciscus*) *oregonensis* Richardson).

806. *Ptychocheilus oregonensis* (Richardson). *Squawfish*; Chappaul; *Whitefish*.
Rivers of Oregon and Washington, in the Columbia Basin to Montana and Idaho, and northward to British Columbia.
Cyprinus (Leuciscus) oregonensis Richardson, Fauna Bor.-Amer., III, 1836, 305, Columbia River.
Ptychocheilus gracilis Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 229, Willamette River.
807. *Ptychocheilus grandis* (Ayres). *Sacramento pike*; *Sacramento squawfish*.
Rivers of California and southeastern Oregon; Pit River.
Gila grandis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 18, San Francisco.
Ptychocheilus major Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 229, San Francisco.
Ptychocheilus harfordi Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 72, Sacramento River; scales 90 to 95, a variant with smaller scales.
808. *Ptychocheilus lucius* Girard. *White salmon of the Colorado*; *Colorado River squawfish*.
Colorado River Basin, in all larger streams from Rio Uncompahgre to the Gulf of California; largest of American *Cyprinidæ*, reaching 80 pounds.
Ptychocheilus lucius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 209, Rio Colorado.
809. *Ptychocheilus umpquæ* Snyder.
Coastal streams of Oregon.
Ptychocheilus umpquæ Snyder, Bull. U. S. Bur. Fish., XXVII, 1907 (1908), 170, fig. 2, in part, Callopoia Creek, Oakland, Oreg.
- Genus 300. *GILA* Baird and Girard.
Gila Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 368 (*G. robusta* Baird and Girard).
810. *Gila elegans* Baird and Girard. *Bony-tail*; *Gila trout*; *Verde trout*.
Colorado and Gila Rivers; abundant in river channels.
Gila elegans Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 369, Zuñi, Colorado, and Gila Rivers.
Gila emoryi Baird and Girard, loc. cit., 388, Gila River.
811. *Gila robusta* Baird and Girard. *Roundtail*.
Tributaries of the Rio Colorado and Rio Gila; very common up to the foot of the mountains in Colorado.
Gila robusta Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 368, Zuñi River.
Gila gracilis Baird and Girard, loc. cit., 369, Zuñi River.
Gila grahami Baird and Girard, loc. cit., 389, Rio San Pedro, tributary to Rio Gila.
Ptychocheilus vorax Girard, loc. cit., 1856, 209, locality unknown.
Leuciscus zunnensis Günther, Cat., VII, 1868, 241, Zuñi River; substitute for *gracilis*, preoccupied in *Leuciscus*.
Gila affinis Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 474, probably erroneously ascribed to Kansas River.
Gila nacreæ Cope, Hayden's Geol. Surv. Wyo., 1870 (1871), 441, tributary of Green River, Wyo.; young, perhaps of *G. elegans*.
812. *Gila seminuda* Cope and Yarrow.
Rio Virgen, in Utah and Nevada.
Gila seminuda Cope and Yarrow, Wheeler's Surv., Zool., V, 1875, 666, Rio Virgen, Nev.
813. *Gila minacæ* Meek.
Streams of Chihuahua, Mexico.
Gila minacæ Meek, Field Col. Mus., Zool., III, May, 1902, 80, Rio Paphigoehic, Miñaca, Chihuahua, Mex.
- Genus 301. *NOTEMIGONUS* Rafinesque.
Notemigonus Rafinesque, Jour. Phys., LXXXVIII, 1819, 420, (*N. auratus* Rafinesque = *Cyprinus crysoleucas* Mitchell).
Hemiplus Rafinesque, Anal. Nat., I, 1820, 6 (*H. lacustris* Rafinesque).

- 814. *Notemigonus crysoleucas*** (Mitchill). *Roach; Sunfish; Dace; Bitter-head; Shiner; Chub; Bream; Gudgeon; Young shad; Windfish.*
 Nova Scotia and Maryland to the Dakotas.
Cyprinus crysoleucas Mitchill, Rept., Fish. N. Y., 1814, 23, New York.
Cyprinus hemiplus Rafinesque, Amer. Month. Mag., II, 1817, 121, Lake George, Saratoga, N. Y.
Notemigonus auratus Rafinesque, Jour. Phys., LXXXVIII, 1819, 421, Ohio River.
Hemiplus lacustris Rafinesque, Anal. Nat., I, 1820, 6, Lake George.
Abramis versicolor DeKay, N. Y. Fauna: Fishes, 1842, 191, Connecticut and Hudson Rivers; Peekskill.
- 815. *Notemigonus bosci*** (Cuvier and Valenciennes).
 Rivers of the South Atlantic States; abundant from the James to the Altamaha.
Leuciscus boscii Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 232 (313), Carolina, Pennsylvania, and New York.
Cyprinus americanus Linnaeus, Syst. Nat., ed. XII, 1766, 530, Charlestown; name preoccupied.
Notemigonus ischanus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 364, South Fork Ocmulgee River, Flat Shoals, Ga.
Luxilus leptosomus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 203, Dry Creek, Victoria, Tex.
Luxilus seco Girard, loc. cit., 203, Rio Seco, tributary of Rio Nueces, Tex.
- 816. *Notemigonus gardoneus*** (Cuvier and Valenciennes).
 South Carolina.
Leuciscus gardoneus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 235 (316), Charleston, S. C.; perhaps a hybrid.
- Genus 302. OPSOPŒODUS** Hay.
Opsopæodus Hay, Proc. U. S. Nat. Mus., III, 1880, 507 (*O. emiliæ* Hay).
Trychærodon Forbes, in Jordan and Gilbert, Bull. U. S. Nat. Mus., XVI, 1882, 247 (*T. megalops* Forbes).
- 817. *Opsopæodus emiliæ*** Hay.
 Lake Erie and southern Indiana and Illinois to Georgia and Mississippi.
Opsopæodus emiliæ Hay, Proc. U. S. Nat. Mus., III, 1880, 507, Artesia, Macon, and Enterprise, Miss.
- 818. *Opsopæodus osculus*** Evermann.
 Rio Neches and other streams about Palestine and Houston, Tex.
Opsopæodus osculus Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 82, Neches River near Palestine, Tex.
- 819. *Opsopæodus borealis*** Harper and Nichols. *Athabaska minnow.*
 Streams of Alberta.
Opsopæodus borealis Harper and Nichols, Bull. Amer. Mus. Nat. Hist., XLI, 266, Lake Athabaska at Fort Chipewyan, Alberta, Canada.
- 820. *Opsopæodus megalops*** (Forbes).
 Western Ohio to Illinois.
Trychærodon megalops Forbes, in Jordan and Gilbert, Synopsis, 1883, 247, Illinois River at Pekin and Peoria, Ill.
- Genus 303. OPSOPŒA** Jordan and Evermann.
Opsopæa Jordan and Evermann, Fishes North and Mid. Amer., 1896, 247 (*Opsopæodus bollmani* Gilbert).
- 821. *Opsopæa bollmani*** (Gilbert).
 Lowland swamps of the Southern States; known from Satilla River, Waycross, Ga., and Obion River, Cypress, Tenn.
Opsopæodus bollmani Gilbert, Bull. U. S. Fish Com., VIII, 1888 (1890), 226, Buckland Creek, Millen, Ga.
- Genus 304. ALGANSEA** Girard.
Algansea Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182 (*Leuciscus tincella* Cuvier and Valenciennes).
- 822. *Algansea tincella*** (Cuvier and Valenciennes).
 Lakes about the City of Mexico and in streams of central Mexico.
Leuciscus tincella Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 240 (323), City of Mexico.

823. *Algansea dugesi* Bean.

Central Mexico, in streams tributary to Rio de Lerma, Lake Yuriria in Guanajuato.

Algansea dugesi Bean, Proc. U. S. Nat. Mus., XV, 1892, 283, Lake Yuriria, Guanajuato, Mex.

?*Algansea tarascorum* Steindachner, Einige Fischarten Mexicos, 1895, 11, pl. 3, figs. 2-2c, Lake Patzeuaro, Mex.

824. *Algansea lacustris* Steindachner.

Lake Patzeuaro, Jalisco, Mexico.

Algansea lacustris Steindachner, Einige Fischarten Mexicos, 1895, 10, pl. 3, figs. 1 and 1b, Lake Patzeuaro.

825. *Algansea sallæi* (Günther).

Streams of central Mexico.

Ceratichthys sallæi Günther, Cat., VII, 1868, 484, Cuernavaca, Mex.

Zophendum australe Jordan, Proc. U. S. Nat. Mus., II, 1879, 300, Lake Tupataro, Mex., Rio Lerma.

826. *Algansea rubescens* Meek.

Lake Patzeuaro, Michoacan.

Algansea rubescens Meek, Field Col. Mus., Zool., V, 1905, 46, fig. 9, Lake Patzeuaro.

827. *Algansea stigmatura* Regan.

Northern Mexico.

Algansea stigmatura Regan, Biol. Centrali-Amer., 1907, 152, Tab. XXV, fig. 2, Rio Grande de Santiago, Jalisco.

828. *Algansea affinis* Regan

Upper tributaries of Rio Lerma and Rio Panuco, Mexico.

Algansea affinis Regan, Biol. Centrali-Amer., 1907, 151, Tab. XXV, fig. 1, Aguas Calientes, Salamanca, and San Juan del Rio, Mexico.

Genus 305. *POGONICHTHYS* Girard.

Pogonichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 136 (*P. inæquilobus* Baird and Girard=*Leuciscus macrolepidotus* Ayres).

Symmetrurus Jordan, Hayden's Geol. Surv. Terr., IV, 1878, 788, (*Pogonichthys argyreus* Girard); young.

829. *Pogonichthys macrolepidotus* (Ayres). *Splittail*.

Streams of central California; very common in the Sacramento and San Joaquin Rivers.

Leuciscus macrolepidotus Ayres, Proc. Calif. Acad. Nat. Sci., I, in Placer Times and Transcript, May 30, 1854, San Francisco, Calif.

Pogonichthys inæquilobus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 136, San Joaquin Valley, Calif.

Pogonichthys argyreus Girard, loc. cit., 153, Presidio, Calif.

Genus 306. *MARGARISCUS* Cockerell.

Margariscus Cockerell, Proc. Biol. Soc. Wash., XXII, 1909, 217 (*Clinostomus margarita* Cope).

As a small barbel is normally present in this genus and placed above the tip of the maxillary, as in *Semotilus*, the genus must be placed near *Leucosomus*.

830. *Margariscus margarita* (Cope). *Minnow*; *Goldthread shiner*; *Pearl minnow*.

Lake Erie, south to James River and headwaters of the Kanawha.

Clinostomus margarita Cope, Trans. Amer. Phil. Soc., XIII, 1866, 377, Conestoga River, Lancaster, Pa.

831. *Margariscus nachtriebi*²⁵ (Cox).

North Dakota to New Brunswick.

Leuciscus nachtriebi U. O. Cox, Rept. U. S. Fish Com., XX, 1894 (1896), 615, Minnesota, Mille Lacs Lake.

Couesius plumbeus rubrilateralis Philip Cox, Bull. Nat. Hist., 2, 1901, 42, Miramichi, Canada.

Leuciscus carletoni Kendall, Bull. U. S. Fish Com., XXII, 1902, 357, fig. 1, Penobscot River, Me.

²⁵ "With much doubt we leave this species (*M. nachtriebi*) with *Margariscus*. The actual relation of this and other related forms is yet to be determined." (Jordan.)

Genus 307. LEUCOSOMUS Heckel. *Fallfishes.*

Leucosomus Heckel, Russeger's Reisen, 1, 1843, 1042 (*L. chrysoleucus* Heckel = *Cyprinus corporal* Mitchill); not *Leucosoma* Gray, a genus of Salangidae.

Cheilonemus Baird, in Storer, Hist. Fish. Mass., 1855, 285 (*Leuciscus pulchellus* Storer = *Cyprinus corporal* Mitchill).

832. *Leucosomus corporal* (Mitchill). *Chub; Dace; Fallfish; Silver chub; Windfish; Corporal; Chivin.*

Eastern United States, from the St. Lawrence to James River, Virginia; largest of our eastern Cyprinidae; common northward, east of the Alleghenies.

Cyprinus corporal Mitchill, Amer. Month. Mag., I, 1817, 289, Wallkill River, N. Y.

Cyprinus bullaris Rafinesque, loc. cit., II, Dec., 1817, 120, Hudson River.

Leuciscus argenteus Storer, Hist. Fish. Mass., 1839, 90, Worcester Co., Mass.

Leuciscus pulchellus Storer, loc. cit., 90, Walpole, Mass.

Leuciscus nitidus DeKay, N. Y. Fauna: Fishes, 1842, 209, Lake Champlain.

Leuciscus chrysopterus DeKay, loc. cit., 211, N. Y. Harbor.

Leuciscus rotengulus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 236 (318), Carolinas.

Leucosomus cataractus Baird, Iconog. Encycl., II, 216, and in Cope, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 523, Susquehanna River.

Leucosomus rhotheus Cope, loc. cit., XIII, 1861, 523, Brandywine Creek and Rancocas Creek, Pa.

Squalius hyalo Cope, loc. cit., XVI, 1864, 280, Conestoga River, Pa.

Genus 308. SEMOTILUS Rafinesque. *Horned dace.*

Semotilus Rafinesque, Ichth. Ohiensis, 1820, 49 (*S. dorsalis* Rafinesque = *Cyprinus atromaculatus* Mitchill).

833. *Semotilus atromaculatus* (Mitchill). *Horned dace; Creek chub; Chub; Silver chub; Mud chub.*

Maine to New Jersey; westward to Kansas and Wyoming.

Cyprinus atromaculatus Mitchill, Amer. Month. Mag., II, 1818, 324, Wallkill River, N. Y.

Semotilus dorsalis Rafinesque, Ichth. Ohiensis, 1820, 49, Kentucky River.

Semotilus cephalus Rafinesque, loc. cit., 49, Ohio River.

Semotilus diplemia Rafinesque, loc. cit., 50, Ohio River.

Leuciscus iris Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 190, (255), New York and Carolina.

Leuciscus storeri Cuvier and Valenciennes, loc. cit., 237 (255), New York.

Leuciscus pulchelloides Ayres, Proc. Bost. Soc. Nat. Hist., III, 1849, 157, Connecticut.

Leucosomus pallidus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 190, Antelope Creek, Ark.

Leucosomus incrassatus Girard, loc. cit., 1856, 190, Choctaw Agency.

Semotilus macrocephalus Girard, loc. cit., 1856, 204, Fort Pierre, Nebr.

Semotilus speciosus Girard, loc. cit., 1856, 204, Sweetwater River, Nebr.

Semotilus hammondi Abbott, loc. cit., XII, 1860, 474, Kansas.

834. *Semotilus atromaculatus thoreauanus* (Jordan).

Flint River, Ga.

Semotilus thoreauanus Jordan, Bull., U. S. Nat. Mus., X, 1877, 63, Flint River, Ga.

Genus 309. RICHARDSONIUS²⁶ Girard.

Richardsonius Girard, Proc., Acad. Nat. Sci. Phila., VIII, 1856, 201 (*Cyprinus (Abramis) batteatus* Richardson).

²⁶ The various American allies of *Leuciscus* Cuvier (type *Cyprinus leuciscus* L. of Europe, *Squalius*), we now divide among several genera, these corresponding to the subgenera in the previous check list. No species belonging to *Leuciscus*, as strictly defined, occurs in America or Asia. Many of the species, both in the groups allied to *Leuciscus* and *Rutilus* as well as in those related to *Hypopsis* and *Notropis* need comparison and verification.

Richardsonius is here restricted to the single species, *batteatus*, distinguished, with its variant, by the very long anal fin. The genus *Chonoda* is provisionally recognized for species more or less similar to *Richardsonius* but with the anal fin shorter. This group seems to merge into *Tigoma*, species with the anal fin short and the scales rather loosely imbricated. One species, *caurina*, forms another intermediate type with short anal and very small scales. Any arrangement of these fishes must be still wholly provisional.

835. *Richardsonius siuslawi* (Evermann and Meek).
Streams of western Oregon.
Leuciscus siuslawi Evermann and Meek, Bull. U. S. Fish Com., XVII,
1897 (1898), 72, Siuslaw River, Mapleton, Oreg.
836. *Richardsonius lateralis* Girard.
Streams of Washington and Montana, a doubtful species, nominally
distinguished by the smaller number of anal rays.
Richardsonius lateralis Girard, Proc. Acad. Nat. Sci. Phila., VIII,
1856, 202, Fort Steilacoom, Wash.
Leuciscus gilli Evermann, Bull., U. S. Fish Com., XI, 1891, 44, Browns
Gulch Creek, Silver Bow, Mont.
837. *Richardsonius balteatus* (Richardson). *Red-sided bream*.
Columbia and Fraser Rivers, and streams about Puget Sound.
Cyprinus (Abramis) balteatus Richardson, Fauna Bor.-Amer., III,
1836, 301, Columbia River.
838. *Richardsonius thermophilus* Evermann and Cockerell.
Warm Springs, Silver Creek, and Silvies River, Oreg.
Richardsonius thermophilus Evermann and Cockerell, Proc. Biol. Soc.
Wash., XXII, December 8, 1909, 185, Warm Springs, Harney Co.,
Oreg.
- Genus 310. CLARKINA Jordan and Evermann.
Cyprinus (Leuciscus) caurinus Richardson is an ally of the genus
Richardsonius, differing in the short anal fin of 9 rays only. The
body is elongate and the scales (86) very small, well imbricated,
differing from the type of *Tigoma*.
Clarkina Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI,
1927 (April 27), 502 (*Cyprinus caurinus* Richardson).
839. *Clarkina caurina* (Richardson).
Cyprinus (Leuciscus) caurinus Richardson, Fauna Bor.-Amer., III,
1836, 304, Columbia River at Fort Vancouver.
Leuciscus caurinus Snyder, Bull. U. S. Fish Com., XXVII, 1907, 173;
not *Mylocheilus caurinus* Agassiz; Willamette River near Corvallis,
Oreg.
- Genus 311. CHEONDA Girard.
Cheonda Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 207 (*C.*
cooperi Girard); scales moderate; anal rays 8 to 11, usually 9.
840. *Cheonda cooperi* Girard.
Lower Columbia River Basin.
Cheonda cooperi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 207,
Columbia River, Fort Vancouver, Wash.
841. *Cheonda microdon* (Snyder).
Richardsonius microdon Snyder, Bull. U. S. Bur. Fish., XXXV, 1915-16
(1918), 58; scales 55; anal rays 8 or 9.
842. *Cheonda egregia* (Girard).
Nevada to northern California; known from the Humboldt, Truckee,
and Sacramento-San Joaquin Basins and Napa Valley, Calif.
Tigoma egregia Girard, Pac. R. R. Surv., X, 1858, 291, locality Hum-
boldt River at Inlay, Nev.
Gila ardesiaca Cope, Wheeler Surv., Zool., V, 1875, 660, Pl. XXX,
figs. 1, 1a, locality unknown, probably Nevada.
Squalius galtii Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 148,
Pyramid Lake, Nev.
Phoxinus clevelandi C. H. and R. S. Eigenmann, West Amer. Scientist,
1889, 149, Etna Springs, Napa County, Calif. (locality probably
erroneous).
843. *Cheonda evermanni* (Juday).
South Platte basin.
Leuciscus evermanni Juday, Bull. U. S. Bur. Fish., XXIV, 1904 (1905),
226, with plate, Boulder Creek, Boulder, Colo.; A. 8; scales 47; teeth
2, 5-5, 1.

844. *Cheonda hydrophlox* (Cope). *Silverside minnow*; *Po-he-wa*.
Salt Lake basin and upper Snake River.
Clinostomus hydrophlox Cope, Hayden's Geol. Surv. Mont., 1871, 475,
Blackfoot Creek, Idaho.
? *Clinostomus tænia* Cope, Proc., Amer. Phil. Soc., XIV, 1874, 133,
Utah Lake, Provo, Utah.
845. *Cheonda humboldti* (Girard).
Locality doubtful.
Tigoma humboldti Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
Humboldt River, Nev.; may be identical with *C. hydrophlox*, but this
seems unlikely.
846. *Cheonda montana* (Cope).
Clinostomus montanus Cope, Hayden's Geol. Surv. Mont., 1871, 476,
Grass Creek, Idaho.
? *Clinostomus tænia* Cope, Proc., Amer. Phil. Soc., XIV, 1874, 133,
Utah Lake, Provo, Utah.
May prove to be the same as *C. hydrophlox*.
847. *Cheonda copei* (Jordan and Gilbert). *Leather-sided minnow*.
Great Basin of Utah and Wood River, Idaho.
? *Tigoma gracilis* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
locality unknown; species unidentifiable, name preoccupied in
Leuciscus.
Squalius copei Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 461,
Bear River, Evanston; not *Leuciscus copei* Günther, a *Notropis*.
Squalius alicia Jouy, loc. cit., IV, 1881, 19, Provo River near Utah
Lake, Utah.
- Genus 312. **TIGOMA** Girard.
Tigoma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 205 (*Gila
pulchella* Baird and Girard).
Protoporus Cope, Hayden's Geol. Surv. Mont., 1871 (1872), 473 (*P.
dominus* Cope, young of *Tigoma atraria* Girard).
Myloleucus Cope, loc. cit., 475 (*M. pulverentulus* Cope); the teeth of
Siphoteles accidentally placed in the pharynx of a *Tigoma*.
Temeculina Cockerell, Proc. Biol. Soc. Wash., XXII, 1909, 216 (*Rich-
ardsonius orcutti* Eigenmann and Eigenmann).
848. *Tigoma atraria* (Girard).
Great Basin of Utah, and Snake River Basin above Shoshone Falls.
? *Tigoma lineata* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
locality unknown; not identifiable.
Siboma atraria Girard, loc. cit., 208, Fish Springs, Toole Co., Utah,
near Desert.
Tigoma squamata Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 42,
Great Salt Lake Basin.
Protoporus dominus Cope, Hayden's Geol. Surv. Mont., 1871, 473,
Snake River, Fort Hall, Idaho.
Hybopsis bivittatus Cope, loc. cit., 474, Warm Springs, Utah.
Hybopsis timpanogensis Cope, Proc. Amer. Phil. Soc., XIV, 1874, 134,
Timpanogus, Utah; young.
Squalius cruoreus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880,
460, Provo River, Utah.
Squalius rhomaleus Jordan and Gilbert, loc. cit., 461, Utah Lake, Utah.
849. *Tigoma gibbosa* (Baird and Girard).
Rio Gila, Ariz.
Gila gibbosa Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854,
28, Rio Santa Cruz, Ariz.
Tigoma intermedia Girard, loc. cit., VIII, 1856, 206, Rio San Pedro of
the Gila, Ariz.
Gila nigra Cope, Wheeler's Surv., Zool., V, 1875, 663, Ash Creek and
San Carlos, Ariz.
Squalius lemmonii Rosa Smith, Bull. Calif. Acad. Sci., I, 1884, 3, Rillitto
Creek, near Tucson, Ariz.
850. *Tigoma purpurea* Girard.
San Bernardino Creek in southern Arizona, a tributary of Rio Yaqui.
Tigoma purpurea Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206,
San Bernardino Creek, Ariz.

851. *Tigoma pulchella* (Girard). *Pescadito; Chub of the Rio Grande*.
Rio Grande and other Mexican rivers.
Gila pulchella Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 29, Rio Mimbres, Chihuahua; not *Leuciscus pulchella* Storer, a *Cheilonemus*.
Tigoma nigrescens Girard, loc. cit., VIII, 1856, 207, Boca Grande and Rio Janos, Chihuahua, Mexico.
Tigoma pulchra Girard, loc. cit., 207, Boca Grande and Rio Janos; Chihuahua River, Mexico.
Clinostomus pandora Cope, Hayden's Geol. Surv. Mont., 1871, 475, tributaries Rio Grande, Sangre de Cristo Pass.
Gila gula Cope, Wheeler's Surv., Zool., V, 1875, 661, Rio de Acama and near Fort Wingate, N. Mex.
Chconda modesta Garman, Bull. Mus. Comp. Zool., VIII, 1881, 92, Rio Salinas, Saltillo, Coahuila.
Gila conspersa Garman, loc. cit., VIII, 1881, 91, Rio Nazas, Coahuila, Mexico.
852. *Tigoma bicolor* Girard.
Klamath Lake, Oreg.
Tigoma bicolor Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 206, Klamath Lake, Oreg.
Checonda cærulea Girard, loc. cit., 207, Lost River, Oreg.
853. *Tigoma pulverulenta* (Cope).
Myloleucus pulverulentus Cope, Hayden's Geol. Surv. Mont., 1871, 475, Warm Springs, Utah.
Myloleucus is a synonym of *Tigoma*. In his study of these species, according to Fowler, Professor Cope by accident replaced the single-rowed teeth of a *Siphateles* in his type example of *Myloleucus pulverulentus*, a species having teeth in two rows.
- Subgenus TEMECULINA Cockerell.
854. *Tigoma orcutti* (Eigenmann and Eigenmann).
Temecula, San Luis Rey, San Jacinto, and Santa Ana Rivers, California.
Phoxinus orcutti Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2nd ser., III, 1890, 2, Temecula River, Riverside County, Calif.
- Genus 313. SIBOMA Girard.
Siboma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 209 (*S. crassicauda* Girard).
855. *Siboma crassicauda* (Baird and Girard). *Sacramento chub*.
Rivers of California; generally abundant in the Sacramento and San Joaquin Rivers.
Lavinia crassicauda Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 137, San Joaquin River.
Tigoma crassa Girard, loc. cit., VIII, 1856, 207, Sacramento River.
856. *Siboma conformis* (Baird and Girard).
Tulare Valley and Sacramento-San Joaquin Basin, Calif.
Lavinia conformis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 137; Poso Creek, Tulare County, Calif.
- Genus 314. CLINOSTOMUS Girard.
Clinostomus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 211 (*Luxilus elongatus* Kirtland).
857. *Clinostomus elongatus* (Kirtland). *Red-sided shiner*.
Great Lakes, upper Mississippi Valley, and New York.
Luxilus elongatus Kirtland, Rept. Zool. Ohio, 1836, 169, 193, Mahoning River, Ohio, and Lake Erie near Cleveland.
Leuciscus productus Storer, Synopsis, 1846, 416, Wabash River.
?Leuciscus longirostris Kirtland, The Family Visitor, Mar. 14, 1850, Cleveland, Ohio, and Hudson River.
Squalius proriger Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 280, Michigan.

- 858. *Clinostomus vandoisulus*** (Cuvier and Valenciennes). *Minnow; Long-mouthed minnow; Rosy dace; Pike shiner.*
Leuciscus vandoisulus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 236 (317), South Carolina.
Clinostomus affinis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 212, James River, Va.
Clinostomus funduloides (Potomac River at Washington) and *carolinus* (Salem, N. C.) Girard, loc. cit., 212.
Gila estor Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 66, Elk River, Estill Springs, Tenn.
- Genus 315. HEMITREMIA** Cope.
Hemitremia Cope, Proc. Amer. Phil. Soc., XI, 1870, 462 (*H. vittata* Cope=*Phoxinus flammeus* Jordan and Gilbert).
- 859. *Hemitremia vittata*** Cope.
 Tributaries of the Tennessee River; common in clear streams in northern Alabama.
Hemitremia vittata Cope, Proc. Amer. Phil. Soc., XI, 1870, 462, Holston River, Knoxville, Tenn.; *vittatus* is preoccupied in *Leuciscus*.
Phoxinus flammeus Jordan and Gilbert, in Jordan, Man. Vert., ed. 2, 1878, 303, Elk River, Tenn.
- 860. *Hemitremia milneriana*** (Cope).
 Upper Missouri River Basin.
Phoxinus milnerianus Cope, Amer. Nat., July, 1879, 440, upper Missouri River Basin; probably Battle Creek, Mont.
- Genus 316. PFRILLE** Jordan.
Pfrille Jordan, Copeia, No. 32, 1924, 71 (*Phoxinus neogæus* Cope).
- 861. *Pfrille neogæa*** (Cope). *Bronze minnow.*
 Upper Mississippi Valley and neighboring waters; also Maine and Connecticut lakes.
Phoxinus neogæus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 375, New Hudson, Mich.
 ?*Leuciscus burtonianus* LeSueur, in Vaillant, Bull. Soc. Philom., VIII, 1896, 28, with plate, Burton Mine, Mo.; perhaps a distinct species.
- Genus 317. IOTICHTHYS** Jordan and Evermann.
Iotichthys Jordan and Evermann, Fishes North and Mid. Amer., 1896, 228 (*Clinostomus phlegethontis* Cope).
- 862. *Iotichthys phlegethontis*** (Cope).
 Tributaries of Great Salt Lake and Sevier Lake; basin of Lake Bonneville.
Clinostomus phlegethontis Cope, Proc. Amer. Phil. Soc., XIV, 1874, 137, Beaver River, Utah.
- Genus 318. HESPEROLEUCUS** Snyder.
Hesperoleucus Snyder, Bull. U. S. Bur. Fish., XXXII, 1912, 63 (*Pogonichthys symmetricus* Girard).
Myleleucus Cope, Hayden's Geol. Surv. Mont., 1871, 475 (*M. pulverulentus* Cope=*Pogonichthys symmetricus* Baird and Girard, in part, not type, the teeth having been misplaced).
 This genus and others related, having the teeth 4-5 or 5-5, were placed in the former check list and the Fishes of North and Middle America, in the European genus *Rutilus* Rafinesque; but no American or Asiatic dace is congeneric with *Rutilus rutilus* L.
- 863. *Hesperoleucus symmetricus*** (Baird and Girard).
 Rivers of California and Nevada and waters of Lake County, Oreg.
Pogonichthys symmetricus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 136, Fort Miller, San Joaquin Valley, Calif.
Myleleucus parowanus Cope, Proc. Amer. Phil. Soc., XIV, 1874, 131, Beaver River, Utah.
- 864. *Hesperoleucus navarroensis*** Snyder. *Navarro roach.*
 Navarro Basin on the western coast of northern California.
Hesperoleucus navarroensis Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (1914), 65, Navarro River near Philo, Calif.

865. *Hesperoleucus parvipinnis* Snyder. *Short-finned roach*.
Gualala River Basin, Calif.
Hesperoleucus parvipinnis Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (1914), 66, Gualala River, Sonoma County, Calif.
866. *Hesperoleucus venustus* Snyder. *Venus roach*.
Russian River and the streams entering San Pablo, Suisun, and San Francisco Bays.
Hesperoleucus venustus Snyder, Bull. U. S. Bur. Fish., XXXII, 1912 (1914), 64, fig. 2, Coyote Creek near Gilroy Hot Springs, Calif.
867. *Hesperoleucus mitrulus* Snyder. *Northern roach*.
Streams tributary to the north end of Goose Lake, Oreg.
Hesperoleucus mitrulus Snyder, Bull. U. S. Bur. Fish., XXXII, 1912, (1914), 67, Drew Creek, Lake County, Oreg.
868. *Hesperoleucus subditus* Snyder. *Monterey roach*.
Pajaro River system in the region of foothills and lower mountain ranges of coast ranges.
Hesperoleucus subditus Snyder, Bull. U. S. Bur. Fish., XXXII, 1902 (1904), 67, fig. 3, Uvas Creek, Pajaro River Basin, Santa Clara County, Calif.
869. *Hesperoleucus mearnsi* (Snyder).
Rio Yaqui.
Notropis mearnsi Snyder, Proc., U. S. Nat. Mus., XLIX, 1916 (Dec. 23, 1915), 582, fig., Rio San Bernardino, Yaqui Basin, Sonora, Mexico.
870. *Hesperoleucus anticus* (Cope).
Texas.
Algansea antica Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 282, Texas.
- Genus 319. SIPHATELES Cope.
Siphateles Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 146 (*S. vittatus* Cope); young example.
871. *Siphateles olivaceus* (Cope).
Lake Tahoe; Pyramid Lake; Eagle Lake and Willow Creek, Calif.
Leucis olivaceus Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 145, Pyramid Lake, Nev.
872. *Siphateles obesus* (Girard).
Lakes and streams of Lahontan Basin.
Algansea obesa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 183, Humboldt River, Nev.
Leucis dimidiatus Cope, loc. cit., XXXV, 1883, 145, Pyramid Lake, Nev.
Siphateles vittatus Cope, loc. cit., 146, Pyramid Lake, Nev.
873. *Siphateles bicolor* (Girard).
Lakes of southeastern Oregon (Klamath, Warner, Goose, etc.); Sacramento-San Joaquin Basin; Pit River.
Algansea bicolor Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 183, Klamath Lake.
874. *Siphateles formosus* (Girard).
Algansea formosa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 183, Merced and Mohave Rivers, Calif.
Myloleucus thalassinus Cope, loc. cit., XXXV, 1883, 144, Goose Lake, Oreg.
875. *Siphateles columbianus* (Snyder).
Lakes of southeastern Oregon.
Rutilus columbianus Snyder, Bull. U. S. Bur. Fish., XXVII, 1907, 92, fig. 4, Warm Springs near Harney Lake, Harney County, Oreg.
876. *Siphateles oregonensis* (Snyder).
Lakes of southeastern Oregon.
Rutilus oregonensis Snyder, Bull. U. S. Bur. Fish., XXVII, 1907, 87, fig. 3, XL, Spring, Abert Lake, Oreg.

877. *Siphateles mohavensis* Snyder.

Mohave River, Calif.

Siphateles mohavensis Snyder, Proc. U. S. Nat. Mus., LIV, 1919 (Mar. 15, 1918), 298, figure, Mohave River near Victor, Calif.**Genus 320. *LEUCIDIUS* Snyder.***Leucidius* Snyder, Bull. U. S. Bur. Fish., XXXV, 1917, 64 (*L. pectinifer* Snyder).**878. *Leucidius pectinifer* Snyder. Lake minnow.**

Lahontan system, Nevada and northeastern California.

Leucidius pectinifer Snyder, Bull. U. S. Bur. Fish., XXXV, 1916-17 (Sept. 28, 1917), 64, figs. 5 and 6, Pyramid Lake, Nev.**Genus 321. *NOTROPIS* Rafinesque.***Notropis*²⁷ Rafinesque, Amer. Month. Mag., II, 1818, 204 (*Notropis atherinoides* Rafinesque=?*Alburnus rubellus* Agassiz).*Minnilus* Rafinesque, Ichth. Ohiensis, 1820, 45 (*M. dinemus* Rafinesque).*Alburnellus* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856 (*A. dilectus* Girard).*Photogenis* Cope, Trans. Amer. Phil. Soc., XIII, 1867, 378 (*Squalius photogenis* Cope=*Photogenis leucops* Cope).**879. *Notropis atherinoides* Rafinesque. Shiner; Emerald minnow; Rosy minnow.**

Great Lakes region and Ohio and Mississippi Valleys, and north to Winnipeg.

Notropis atherinoides Rafinesque, Amer. Month. Mag., II, 1818, 204, Lake Erie.*Minnilus dinemus* Rafinesque, Ichth. Ohiensis, 1820, 46, Ohio River.*Alburnus rubellus* Agassiz, Lake Superior, 1850, 364, pl. 3, figs. 1-3, Sault Ste. Marie and the Pie, Lake Superior.*Alburnus nitidus* Kirtland, Cleveland Ann. Sci., 1854, 44, tributaries of Lake Erie.*Alburnellus jaculus* Cope, Trans., Amer. Phil. Soc., XIII, 1866 (1869), 387, St. Joseph River and Dowagiac River, Mich.*Leuciscus copii* Günther, Cat., VII, 1868, 255, Virginia and Michigan; *b. titulus* and *jaculus*, preoccupied.**880. *Notropis photogenis* (Cope). Silvery minnows. Allegheny region.**? *Rutilus compressus* Rafinesque, Ichth. Ohiensis, 1820, 51, Monongahela River; not certainly identifiable; may be *Luxilis cornutus*.*Squalius photogenis* Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 280, Youghiogheny River, Pa.*Photogenis leucops* Cope, loc. cit., XIX, 1867, 164, Sinking Creek, and near Austinville, Va.*Photogenis leucops engraulinus* Cope, loc. cit., 164, tributaries of Kanawha River, Austinville, Va.**881. *Notropis amoenus* (Abbott).**

Clear streams of the Alleghenies from the Raritan to the Neuse.

Alburnellus amoenus Abbott, Amer. Nat., VIII, 1874, 334, Raritan River, N. J.**882. *Notropis scepticus* (Jordan and Gilbert).**

Rivers of the Carolinas from Cape Fear to the Santee.

Notropis photogenis ("pale variety"), Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 23.*Minnilus scepticus* Jordan and Gilbert, Synopsis, 1883, 200, Saluda River, S. C.

²⁷ The name *Notropis atherinoides* was given by Rafinesque to a small and very slender minnow from Lake Erie. It was apparently a semi-dried example having therefore a ridge on the back as implied in the name *Notropis*. It had a long and fin of 11 rays, and the dorsal inserted behind the ventrals. Among the small minnows of the Great Lakes it could hardly be anything else than *rubellus*; yet the original description is very incomplete and perhaps not identifiable. As this is the oldest name for any of the small American minnows with four teeth in the main row of the pharyngeals, and as distinctions of genera among these is especially difficult, the writers in 1866 extended the name to include them all. But this assemblage is hardly a natural one, as the species diverge in various directions. Hence, in this catalogue the former subgenera are given generic rank.

883. *Notropis telescopus* (Cope).
Tennessee River Basin; very abundant in cold mountain streams.
Photogenis telescopus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867
165, Holston River, Va.
884. *Notropis arcansanus* (Meek).
Ozark region.
Notropis telecopus arcansanus Meek, Bull. U. S. Fish Com., IX, 1889
(1891), 133, White River, Eureka Springs, Ark.
885. *Notropis universitatis* Evermann and Cockerell.
Boulder Creek, Boulder, Colo.
Notropis notatus var., Univ. of Colo. Stud., Apr., 1908, 170.
Notropis universitatis Evermann and Cockerell, Proc. Biol. Soc. Wash.,
XXII, Dec., 1909, 187, Boulder Creek, Boulder, Colo.
886. *Notropis welaka* Evermann and Kendall.
St. Johns River, Fla.
Notropis welaka Evermann and Kendall, Bull. U. S. Fish Com., XVII,
1897 (Feb. 9, 1898), 126, pl. 6, fig. 2, St. Johns River near Welaka,
Fla.
887. *Notropis leuciodus* (Cope).
Tennessee River Basin, in mountain streams.
Photogenis leuciodus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867,
165, Holston River, Va.
888. *Notropis micropteryx* (Cope).
Headwaters of Cumberland and Tennessee Rivers; also in Ozark region.
Alburnellus micropteryx Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868,
233, Holston River, Va.
889. *Notropis metallicus* Jordan and Meek.
Swamp streams in Georgia and Florida, from the Suwanee Basin to
the Escambia.
Notropis metallicus Jordan and Meek, Proc. U. S. Nat. Mus., VII,
1884, 475, Allapaha River, Nashville, Ga.
890. *Notropis louisianæ* Evermann.
Atchafalaya River, La.
Notropis louisianæ Evermann, in Jordan and Evermann, Fishes North
and Mid. Amer., 1898, 2801, Atchafalaya River, Melville, La.
891. *Notropis socius* (Girard).
Live Oak Creek, southwestern Texas.
Alburnus socius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 193,
Live Oak Creek, Tex.
892. *Notropis amabilis* (Girard).
Rio Leona, a tributary of Rio Nueces, Tex.
Alburnus amabilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
193, Rio Leona, Tex.
893. *Notropis arge* (Cope).
Upper Mississippi Valley.
Alburnellus arge Cope, Trans. Amer. Phil. Soc., XIII, 1866, 388, Detroit
River or St. Joseph River, Mich.
894. *Notropis pilsbryi* Fowler.
Notropis pilsbryi Fowler, Proc. Acad. Nat. Sci. Phila., LVI, 1904, 245,
figure, Rogers, White River Basin, Ark.
895. *Notropis rubrifrons* (Cope). *Rosy-faced minnow*.
New York and western Pennsylvania to southern Michigan, Kansas,
and Kentucky.
Alburnus rubrifrons Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 85,
Kiskiminitas River, a tributary of Allegheny River.
Alburnellus percobromus Cope, Hayden's Geol. Surv. Wyo., 1870, 440,
Missouri River at St. Joseph, Mo.

- 896. *Notropis dilectus* (Girard).**
 Lower Ohio to the Rio Grande; abundant in Arkansas and eastern Texas in sandy streams.
Alburnus dilectus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 193, Arkansas River, Fort Smith, Ark.
Alburnus lepidulus Girard, loc. cit., 212, Black Warrior River, Ala.
Alburnus oligaspis Cope, loc. cit., XVI, 1864, 282, Kansas.
Alburnellus jemezianus Cope, Wheeler Surv., Zool., V, 1875, 650, Rio Grande, San Ildefonso, Mexico.
- 897. *Notropis stilbius* (Jordan).**
 Alabama River and tributaries.
Nototropis stilbius Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 343, Etowah and Oostanaula Rivers, Rome, Ga.
- 898. *Notropis notemigonoides* Evermann.**
 Rio Neches near Palestine, Tex., and streams about Houston, Tex.
Notropis notemigonoides Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 81, Neches River, Palestine, Tex., and Sims Bayou, Houston, Tex.
- 899. *Notropis fumeus* Evermann.**
 Hunter Creek, Houston, Tex.
Notropis fumeus Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 81, Hunter Creek, Houston, Tex.
- Genus 322. PARANOTROPIS Fowler.**
Episema Cope and Jordan, Bull. U. S. Nat. Mus., X, 1877, 64 (*Photogenis scabriceps* Cope, name preoccupied).
Paranotropis Fowler, Proc. Acad. Nat. Sci. Phila., LVI, 1904, 245 (*Photogenis scabriceps* Cope).
- 900. *Paranotropis scabriceps* (Cope).**
 Kanawha River, W. Va.
Photogenis scabriceps Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 166, Sinking and Walker Creeks, tributaries of Kanawha River.
- 901. *Paranotropis ariommus* (Cope).**
 Ohio and Tennessee Valleys.
Photogenis ariommus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 378, no locality given.
- 902. *Paranotropis jejuna* (Forbes).**
 Western Pennsylvania to Kansas and north to Winnipeg.
Episema jejuna Forbes, Bull. Ill. Lab. Nat. Hist., I, 1878, 60, Illinois River.
- 903. *Paranotropis megalops* (Girard).**
 Rivers of Texas from the Colorado westward.
Alburnus megalops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 193, San Felipe Creek, Tex.; the name preoccupied in *Notropis* (*Luxilus*) but not in *Paranotropis*.
- Genus 323. LYTHRURUS Jordan.**
Lythrurus Jordan, Man. Vert., ed. 1, 1876, 272 (*Notropis lythrurus* Jordan=*Semotilus diptæmius* of authors, not of Rafinesque).
- 904. *Lythrurus umbratilis* (Girard).**
 Arkansas River and streams of Kansas and southwestern Iowa.
Alburnus umbratilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 193, Sugar Loaf Creek, tributary of Poteau River, Ark.
Luxilus lucidus Girard, loc. cit., 203, Coal Creek, tributary of South Fork of Canadian River.
Minnilus nigripinnis Gilbert, Bull., Washburn Lab. Nat. Hist., I, 1884, 14, Shunganunga Creek near Topeka, Kans.
 ?*Notropis macrolepidotus* Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, 138, Illinois.

905. *Lythrurus cyanocephalus* Copeland.
Rivers of southern Wisconsin to Ohio and Kentucky and Indiana.
Lythrurus cyanocephalus Copeland, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 70, Racine River, Wis.
Rutilus ruber Rafinesque, Ichth. Ohiensis 1820, 52, Elkhorn and Kentucky Rivers; named but not described.
Notropis lythrurus Jordan, Proc., U. S. Nat. Mus., VII, 1884, 476, White River, Indianapolis; a rather more slender southern form.
906. *Lythrurus atripes* Jordan. *Blackfin; Compressed redfin.*
Southern Illinois and Iowa.
Lythrurus atripes Jordan, Bull. Ill. Lab. Nat. Hist., No. 2, 1878, 59, streams of Union and Johnson Counties, Ill.
907. *Lythrurus ardens* (Cope).
Roanoke River, Va.
Hypsilepis ardens Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 163, headwaters of Roanoke River, Montgomery County, Va.
908. *Lythrurus fasciolaris* (Gilbert).
Southern bend of Tennessee River, in limestone streams.
Notropis umbratilis fasciolaris Gilbert, Bull. U. S. Fish Com., IX, 1889 (1891), 148, streams about Florence, Ala.
909. *Lythrurus matutinus* (Cope).
Neuse and Pamlico Rivers; common in sandy brooks.
Alburnellus matutinus Cope, Proc. Amer. Phil. Soc., XI, 1870, 465, Neuse River, Wake County, N. C.
910. *Lythrurus punctulatus* (Hay).
Tributaries of Big Hatchee River, northern Mississippi.
Minnilus punctulatus Hay, Proc. U. S. Nat. Mus., III, 1880, 508, Tusculum River, a tributary of the Big Hatchee, near Corinth, Miss.
911. *Lythrurus bellus* (Hay).
Tombigbee River, Miss.
Minnilus bellus Hay, Proc. U. S. Nat. Mus., III, 1880, 510, Tombigbee River, Artesia and Macon, Miss.
912. *Lythrurus roseipinnis* (Hay).
Sandy streams of Gulf States, from Escambia River to the Chickasawha.
Notropis roseipinnis Hay, in Jordan, Cat. Fishes N. Amer., 1885, 27, Chickasawha River, Enterprise, Miss.; substitute for *rubripinnis*, preoccupied.
913. *Lythrurus lirus* (Jordan).
Alabama River Basin; abundant in sandy streams.
Nototropis lirus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 342, Etowah River, Rome, Ga.
Notropis alabamæ Jordan and Meek, Proc. U. S. Nat. Mus., VII, 1884, 476, Alabama River, Montgomery, Ala.
- Genus 324. *ORCELLA* Jordan and Evermann
Orcella Jordan and Evermann, Fish. North and Mid. Amer., 1896, 254 (*N. orca* Woolman); not "*Orcella*," a genus of Cetacea.
Orcula Jordan and Evermann, loc. cit., 1900, 3140, substitute for *Orcella*, regarded as preoccupied by *Orcella*.
914. *Orcella nazas* (Meek).
Headwaters of the Rio Nazas in Durango, Mexico.
Nototropis nazas Meek, Field Col. Mus., Zool., V, 1904, 70, fig. 19, Santiago Papasquiaro, Durango, Mexico.
915. *Orcella orca* (Woolman).
Rio Grande at El Paso, Tex.
Notropis orca Woolman, Bull. U. S. Fish Com., XIV, 1894, 56, Rio Grande, El Paso, Tex.
- Genus 325. *HYDROPHLOX* Jordan and Brayton
Hydrophlox Jordan and Brayton, Bull. U. S. Nat. Mus., XIII, 1878, 32 (*Hybopsis rubricroceus* Cope).

916. **Hydrophlox rubricroceus** (Cope). *Red fallfish*.
Headwaters of the Tennessee and Savannah Rivers.
Hybopsis rubricroceus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 231,
Tumbling Creek, tributary of the North Fork of Holston River, Va.
917. **Hydrophlox chlorocephalus** (Cope).
Santee Basin, in North and South Carolina.
Hybopsis chlorocephalus Cope, Proc. Amer. Phil. Soc., XI, 1870, 461,
Catawba River, N. C.
918. **Hydrophlox lutipinnis** Jordan and Brayton.
Santee and Oconee Rivers, Ga.
Hydrophlox lutipinnis Jordan and Brayton, Bull. U. S. Nat. Mus.,
XII, 1878, 36, Oconee River, Halls Springs, Ga.
919. **Hydrophlox chiliticus** (Cope).
Basin of Great Pedee River, N. C.; common in upland streams.
Hybopsis chiliticus Cope, Proc. Amer. Phil. Soc., XI, 1870, 462, Yadkin
River, Rowan County, N. C.
920. **Hydrophlox altipinnis** (Cope).
Yadkin, Great Pedee, and Cape Fear Rivers, N. C.
Alburnellus altipinnis Cope, Proc. Amer. Phil. Soc., XI, 1870, 464,
Yadkin River, Rowan County, N. C.
921. **Hydrophlox roseus** (Jordan).
Lowland streams of Gulf States from Ogeechee River to the Mississippi.
Luxilus roseus Jordan, Bull. U. S. Nat. Mus., X, 1877, 61, Notalbany
River near Tikfaw, La.
922. **Hydrophlox stonei** (Fowler).
Streams of South Carolina.
Notropis stonei Fowler, Proc. Acad. Nat. Sci. Phila., LXXII, 1920, 391,
figure, Pocataligo River, Manning, S. C.
923. **Hydrophlox chalybæus** (Cope).
Delaware River to Ogeechee River.
Hybopsis chalybæus Cope, Trans., Amer. Phil. Soc., XIII, 1866, 383,
Schuylkill River, Pa.
924. **Hydrophlox abbotti** (Fowler).
Notropis chalybæus abbotti Fowler, Proc. Acad. Nat. Sci. Phila., LVI,
1904, 239, Pl. XVII, upper figure, Batsto River, N. J.
925. **Hydrophlox chrosomus** (Jordan).
Alabama Basin; very abundant in clear streams and outlets of springs.
Hybopsis chrosomus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 333,
Etowah River, etc., Rome, Ga.
926. **Hydrophlox xænocephalus** (Jordan).
Georgia to Mississippi; common in streams of the pine woods, descending
to brackish water; abundant in Perdido Bay, Pensacola, Fla.
Hybopsis xænocephalus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876,
334, Etowah River, etc., Rome, Ga.
- Genus 326. COCCOTIS** Jordan
Coccotis Jordan, Rept. Zool. Ohio, 1882, 852 (*Hypsilepis coccogenis*
Cope).
Coccogenia Cockerell, Proc. Biol. Soc. Wash., XXII, 1909, 190 (*Hypsi-*
lepis coccogenis Cope).
927. **Coccotis coccogenis** (Cope).
Cumberland, Tennessee, and Savannah Rivers.
Hypsilepis coccogenis Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867,
160, Holston River, Va.
928. **Coccotis brimleyi** (B. A. Bean).
Notropis brimleyi B. A. Bean, Proc. U. S. Nat. Mus., XXVI, 1903, 913,
Cane River, N. C.
929. **Coccotis macdonaldi** (Jordan and Jenkins).
Mountain streams of Virginia tributary to the James and Shenandoah.
Notropis macdonaldi Jordan and Jenkins, Proc. U. S. Nat. Mus., XI,
1888, 354, plate 44, fig. 4, Shenandoah River, Luray, Va.

930. *Coccotis zonatus* (Agassiz).

Mountain streams in the Ozark region of Missouri and Arkansas.

Alburnus zonatus Agassiz, Bull. Mus. Comp. Zool., I, 1863, 9, Osage River, Mo.

931. *Coccotis zonistius* (Jordan).

Chattahoochee River.

Luxilus zonistius Jordan, Proc. U. S. Nat. Mus., II, 1879, 239, Suwannee Creek, tributary of Chattahoochee River in northern Georgia.

Genus 327. *LUXILUS* Rafinesque.

Luxilus Rafinesque, Ichth. Ohiensis, 1820, 47 (*L. chrysocephalus* Rafinesque = *Cyprinus cornutus* Mitchell).

Hypsilepis Baird, Amer. Jour. Sci. Arts, XVII, 1854, 359 (*Cyprinus cornutus* Mitchell); later written *Hypsilepis*.

932. *Luxilus cornutus* (Mitchill). *Shiner*; *Dace*; *Redfin*.

Entire region east of the Rocky Mountains excepting the south Atlantic States and Texas; very abundant; also Potomac River and tributaries; not found south of the James.

Cyprinus cornutus Mitchell, Amer. Month. Mag., I, July, 1817, 289, Wallkill River, N. Y.; preliminary notice, and II, 1818, 324, Westchester County, N. Y.

Cyprinus megalops Rafinesque, loc. cit., II, December, 1817, 121, Hudson River, above the falls.

Cyprinus melanurus Rafinesque, loc. cit., 121, Hudson River, above the falls.

?*Luxilus interruptus* Rafinesque, loc. cit., 49, Ohio River; may be *Notropis rubrifrons*.

Rutilus plargyrus Rafinesque, Ichth. Ohiensis, 1820, 50, Ohio River in Kentucky.

Rutilus compressus Rafinesque, loc. cit., 51, Monongahela River, etc., not certainly identifiable; may be *Notropis photogenis*.

Leuciscus villatus DeKay, N. Y. Fauna: Fishes, 1842, 212, Chittenonga Creek, tributary of Mohawk River.

Argyreus rubripinnis Heckel, Russegger's Reisen, 1843, 1040.

Leuciscus spiralingulus Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 239 (321), New Jersey; New Harmony, Ind.

Leuciscus obesus Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 48, Florence, Ala.

Plargyrus typicus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 196; after Rafinesque.

Plargyrus bowmani Girard, loc. cit., 196, Sweetwater River, Nebr.

Plargyrus argentatus Girard, loc. cit., 212, James River, Va.

Alburnops plumbeolus Cope, loc. cit., XVI, 1864, 282, Saginaw River, Flint, Mich.

Hypsilepis cornutus cyaneus Cope, loc. cit., XIX, 1867, 160, Montreal River, Keweenaw, Mich.

Leuciscus frontalis Agassiz, Lake Superior, 1850, 368, Montreal River, eastern shore of Lake Superior.

Leuciscus gracilis Agassiz, loc. cit., 370, Lake Huron.

Hypsilepis cornutus gibbus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 158, Monroe County, Mich.

933. *Luxilus cornutus isolepis* (Hubbs and Brown).

Oklahoma and Arkansas.

Notropis cornutus isolepis Hubbs and Brown, Proc. Okla. Acad. Sci., Pt. I, VI, Jan. 1, 1927, 129, Mountain Fork River, McCurtain County Okla.

934. *Luxilus cornutus chrysocephalus* (Rafinesque).

Ohio River and southward; the southern form of *cornutus*.

Luxilus chrysocephalus Rafinesque, Amer. Month. Mag., 1820, 47, Ohio River.

935. *Luxilus cerasinus* (Cope).

Roanoke River Basin, in mountain brooks.

Hypsilepis cornutus cerasinus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 159, headwaters of Roanoke River, Va.

936. *Luxilus albeolus* (Jordan).
Roanoke, Tar, and Neuse Rivers.
Notropis megalops albeolus Jordan, Bull. U. S. Fish Com., VIII, 1888
(1891), 123, Roanoke River near Roanoke, Va.
937. *Luxilus lacertosus* (Cope).
Headwaters of Tennessee River.
Hybopsis lacertosus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 232,
Bear Creek, tributary of the Middle Fork of Holston River.
- Genus 328. *EROGALA* Jordan and Brayton
Erogala Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1898, 20
(*Photogenis stigmaturus* Jordan).
938. *Erogala pyrrhomelas* (Cope).
North and South Carolina in the Santee Basin.
Photogenis pyrrhomelas Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870,
463, Catawba River, N. C.
939. *Erogala formosa* (Putnam).
Southern Georgia and Alabama.
Alburnus formosus Putnam, Bull. Mus. Comp. Zool., I, 1863, 9, Mobile;
not *Moniana formosa* Girard.
Leuciscus hypselopterus Günther, Cat., VII, 1868, 255, Mobile; substitute
for *formosus*, preoccupied in *Leuciscus* but not in *Erogala*.
Photogenis grandipinnis Jordan, Bull. U. S. Nat. Mus., X, 1877, 62,
Flint River, Ga.
940. *Erogala whipplii* (Girard). *Silverfin; Lemonfin; Satinfin; Steel-colored minnow.*
Central and northern New York to Minnesota, northern Alabama, and
Arkansas, in clear streams.
Cyprinella whipplii Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856,
198, Sugarloaf Creek, tributary Poteau River, Ark.
Photogenis spilopterus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 378, St.
Joseph River, southwestern Michigan.
Hybopsis fretensis Cope, loc. cit., 382, Detroit, Mich.; young of *C.*
whiplii, fide Hubbs.
941. *Erogala analostana* (Girard). *Silverfin; Satinfin; Lacfin; Shiner.*
Streams about Delaware and Chesapeake Bays; representing *Erogala*
whiplii east of the Alleghenies.
Cyprinella analostana Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859,
59, at Analostan Island, Washington, D. C.
942. *Erogala galactura* (Cope).
Ozark region to Cumberland, Tennessee, and Savannah Rivers; abun-
dant in mountain streams.
Hypsilepis galacturus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 160,
Holston River, Va.
943. *Erogala stigmatura* (Jordan). *Spotted-tail minnow.*
Alabama Basin; very abundant.
Photogenis stigmaturus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876,
337, Etowah River, Rome, Ga.
Cyprinella calliura Jordan, Bull. U. S. Nat. Mus., X, 1877, 61, Black
Warrior River, Ala.
944. *Erogala camura* (Jordan and Meek).
Arkansas River and tributaries.
Cliola camura Jordan and Meek, Proc. U. S. Nat. Mus., VII, 1884, 474,
Arkansas River, Fort Lyon, Colo.
945. *Erogala nivea* (Cope).
Southern Virginia to South Carolina.
Hybopsis niveus Cope, Proc. Amer. Phil. Soc., XI, 1870, 460, Catawba
River, N. C.
946. *Erogala chloristia* (Jordan and Brayton).
Santee River and tributaries.
Codoma chloristia Jordan and Brayton, Bull. U. S. Nat. Mus., XII,
1878, 21, tributary of Saluda River, Greenville, S. C.

947. *Erogala trichroistia* (Jordan and Gilbert).
Alabama River Basin.
Codoma trichroistia Jordan and Gilbert, Bull. U. S. Nat. Mus., XII, 1878, 50, Etowah River, etc., Rome, Ga.
948. *Erogala callistia* (Jordan).
Alabama River Basin.
Photogenis callistius Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 337, Etowah River, etc., Rome, Ga.
949. *Erogala cærulea* (Jordan).
Alabama River Basin.
Photogenis cæruleus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 338, Etowah River, Rome, Ga.
950. *Erogala eurystoma* (Jordan).
Chattahoochee River.
Photogenis eurystomus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 356, Nancys Creek, tributary to Chattahoochee River, near Atlanta, exclusive of the smaller specimens mentioned, which are *Notropis zonistus*; not *Codoma eurystoma* Jordan.
Photogenis leucopus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 41, Chattahoochee River, Gainesville, Ga.
951. *Erogala cercostigma* (Cope).
Sandy streams tributary to the Gulf of Mexico, from Pearl River and Red River to Rio Nueces; abundant.
Cyprinella cercostigma Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 157, Pearl River, Monticello, Miss.
Luxilus chickasavensis Hay, Proc. U. S. Nat. Mus., III, 1880, 506, Chickasawha River, Enterprise, Miss.
952. *Erogala xænura* (Jordan).
Altamaha River Basin, Ga.
Minnilus xænurus Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 79, Ocmulgee River, Flat Shoals, Ga.
953. *Erogala notata* (Girard).
Streams of Texas from Austin westward.
Cyprinella notata Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198, Rio Seco, Tex.
954. *Erogala venusta* (Girard).
Streams of Texas.
Cyprinella venusta Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198, Rio Sabinal, Tex.
955. *Erogala texana* (Girard).
Rivers of Texas from Trinity River to Rio Salado.
Cyprinella texana Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198, Rio Salado and Turkey Creek, Tex.
- Genus 329. **CYPRINELLA** Girard.
Cyprinella Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 196 (*Leuciscus bubalinus* Baird and Girard).
956. *Cyprinella bubalina* (Baird and Girard).
Streams of Arkansas and westward; not common.
Leuciscus bubalinus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 391, Otter Creek, Ark.
Cyprinella umbrosa Girard, loc. cit., VIII, 1856, 197, Coal Creek, tributary of South Fork Canadian River.
Cyprinella gunnisonii Girard, loc. cit., 197, Cottonwood Creek of the Rio Grande, Colo.
Cyprinella beckwithi Girard, loc. cit., 197, Arkansas River, near Fort Makee.
Cyprinella lepida Girard, loc. cit., 197, Rio Frio, Tex.
957. *Cyprinella ludibunda* Girard.
Rio Grande Basin.
Cyprinella ludibunda Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 199, locality now known to be Cottonwood Creek, Colo.

958. *Cyprinella macrostoma* Girard.

Rio Grande region, northward perhaps to Kansas.

Cyprinella macrostoma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 198, Devils River, Tex.

?*Cyprinella luziloides* Girard, loc. cit., 198, San Pedro Creek, Tex.

?*Cyprinella lugubris* Girard, loc. cit., 199, Cottonwood Creek, Colo.

?*Notropis umbrifer* Hay, Proc. U. S. Nat. Mus., X, 1887, 245, Solomon River at Beloit and Saline River near Wakeeney, Kans.

959. *Cyprinella forlonensis* (Meek).

Streams of Tamaulipas, Mexico.

Nototropis forlonensis Meek, Field Col. Mus., Zool., V, 1904, 70, fig. 20, Rio Forlon, Tamaulipas, Mexico.

960. *Cyprinella rubripinna* Garman.

Tributaries of Lago del Muerto, Coahuila, Mexico.

Cyprinella rubripinna Garman, Bull. Mus. Comp. Zool., VIII, 1881, 91, Lago del Muerto; preoccupied.

Notropis garmani Jordan, Cat. Fish. N. Amer., 1885, 813; substitute for *rubripinna*; preoccupied in *Luxilus* but not in *Cyprinella*.

Genus 330. *MONIANA* Girard.

Moniana Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 199 (*Leuciscus lutrensis* Baird and Girard); probably inseparable from *Cyprinella*.

961. *Moniana lutrensis* (Baird and Girard). Redfn.

Southern Illinois to South Dakota, Kansas, and the Rio Grande; very abundant in clear brooks southward.

Leuciscus lutrensis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 391, Otter Creek, tributary of North Fork of Red River, Ark.

Cyprinella suavis Girard, loc. cit., VIII, 1856, 197, San Antonio, Tex.

Moniana leonina Girard, loc. cit., 199, Leon River, tributary to Rio San Antonio, Tex.

Moniana complanata Girard, loc. cit., 200, Brownsville, Tex.

Moniana latabilis Girard, loc. cit., 200, Hurah Creek, tributary of Rio Pecos.

Moniana pulchella Girard, loc. cit., 200, Sugar Loaf Creek, tributary to the Poteau River.

Moniana couchi Girard, loc. cit., 201, China, Nuevo Leon, Mexico.

Moniana rutila Girard, loc. cit., 201, Cadereita, Nuevo Leon, Mexico.

Moniana gracilis Girard, loc. cit., 201, Monterey, Nuevo Leon, Mexico.

Moniana gibbosa Girard, loc. cit., 201, Brownsville, Tex.

Cyprinella billingsiana Cope, Hayden's Geol. Surv. Wyo., 1870, 439, St. Joseph, Mo.

Moniana jugalis Cope, loc. cit., 439, St. Joseph, Mo.

Hypsilepis iris Cope, Wheeler Surv., Zool., V, 1875, 653, Rio Grande, San Ildefonso, N. Mex.

Cyprinella forbesi Jordan, Bull. Ill. State Lab. Nat. Hist., I, 1878, 57, clear streams of southern Illinois.

Cliola montiregis Cope, Proc. Amer. Phil. Soc., XII, 1885, 168 (read Dec. 7, 1884), Monterey, Nuevo Leon, Mexico.

962. *Moniana formosa* Girard.

Rio Mimbres, Chihuahua, Mexico.

Moniana formosa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 201, Rio Mimbres, Chihuahua, Mexico.

963. *Moniana frigida* Girard.

Rio Frio and tributaries of Rio San Antonio, Tex., and Lake Santa Maria, Chihuahua, Mexico.

Moniana frigida Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 200, Rio Frio, Tex.

964. *Moniana santamarie* (Evermann and Goldsborough).

Rio Grande Basin in Mexico.

Notropis santamarie Evermann and Goldsborough, Bull., U. S. Fish Com., XXI, 1901 (1902), 147, fig. 2, Lake Santa Maria in Chihuahua, Mexico.

965. **Moniana proserpina** Girard.
Rio Grande region.
Moniana proserpina Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 200, Devils River, Tex.
Moniana aurata Girard, loc. cit., 200, Piedra Painte, N. Mex.
? *Moniana tristis* Girard, loc. cit., 1856, 201, locality unknown.
966. **Moniana boucardi** (Günther). *Salmichi*.
Central Mexico.
Leuciscus boucardi Günther, Cat., VII, 1868, 485, Cuernavaca, Mexico.
Graodus nigrotæniatus Günther, loc. cit., 485, Atlisco, Mexico.
967. **Moniana robusta** (Meek).
Santa Rosalia and Jimenez, Mexico.
Notropis robustus Meek, Field Col. Mus., Zool., III, 1902, 82, Rio Conchos, Jimenez, Chihuahua, Mexico, figured as *Nototropis robustus*, in Field Col. Mus., Zool., V, 1904, 66.
968. **Moniana chihuahua** (Woolman).
Streams of Chihuahua, Mexico.
Notropis chihuahua Woolman, Amer. Nat., March, 1892, 260, Rio de los Conchos, Chihuahua, Mexico.
969. **Moniana callisema** (Jordan).
Ocmulgee River, Ga.
Episema callisema Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 363, South Fork of Ocmulgee River, Flat Shoals, Ga.
- Genus 331. **HUDSONIUS** Girard.
Hudsonius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 210 (*Clupea hudsonia* Clinton)
970. **Hudsonius chamberlaini** (Evermann).
Atchafalaya River, La.
Notropis chamberlaini Evermann, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2800, Atchafalaya River, Melville, La.
971. **Hudsonius hudsonius** (De Witt Clinton). *Spawneater*; *Spot-tailed minnow*; *Shiner*; *Smelt*.
The Dakotas and Lake Superior to New York, and southward; abundant in the Great Lakes.
Clupea hudsonia De Witt Clinton, Ann. Lyc. Nat. Hist. N. Y., I, 1824, 49, Hudson River.
Hudsonius fluviatilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 210, Hudson River.
Luxilus selene Jordan, Bull. U. S. Nat. Mus., X, 1877, 60, Lake Superior, Bayfield, Wis.
Notropis scopiferus Eigenmann and Eigenmann, Amer. Nat., 1893, 153, Winnipeg, Brandon, Fort Qu'Appelle and Medicine Hat, Assiniboia.
972. **Hudsonius amarus** Girard. *Gudgeon*; *Spawneater*; *Silverfin*; *Shiner*; *Smelt shiner*; *Silvery minnow*; *Blue-lined minnow*.
Delaware and Potomac Rivers.
Hudsonius amarus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 210, Potomac River at Washington.
Hybopsis phaëna Cope, loc. cit., 1864, 279, Delaware River, Trenton, N. J.
973. **Hudsonius saludanus** (Jordan and Brayton).
Coastwise streams from the James to the Ocmulgee.
Alburnops saludanus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 16, a tributary of Saluda River, Greenville, S. C.
Hudsonius euryopa Bean, Proc. U. S. Nat. Mus., II, 1879, 285, McBean Creek, tributary of Savannah River, Ga.
974. **Hudsonius aletes** Jordan and Evermann.
Southern Indiana.
Hudsonius aletes Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, 1927 (Apr. 27), 502, Switz City Swamp, Green County, Ind.

Genus 332. HYBOPSIS Agassiz.

Hybopsis Agassiz, Amer. Jour. Sci. Arts, XVII, 1854 (*H. gracilis* Agassiz = *Rutilus amblops* Rafinesque?).

Alburnops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194 (*Hybopsis gracilis* Agassiz = *A. blennius* Girard).

Graodus Günther, Cat., VII, 1868, 485 (*Graodus nigrotæniatus* Girard, specimen with pharyngeal teeth lost = *Alburnops blennius* Girard).

Chriope Jordan, Hayden's Geol. Surv. Terr., IV, 1878 (*Hybopsis bifrenatus* Cope).

Miniellus Jordan, Man. Vert., ed. 5, 1888, 56 (*Hybopsis procne* Cope).

975. *Hybopsis gracilis* Agassiz.

Tennessee River.

Hybopsis gracilis Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 358, Huntsville, Ala.

976. *Hybopsis blennius* (Girard). *Straw-colored minnow*.

Ohio, Michigan, and New York to Tennessee, Dakota, and Kansas, thence southwestward to Texas.

?*Minnilus microstomus* Rafinesque, Ichth. Ohiensis, 1820, 47, Kentucky River; not certainly identifiable.

?*Rutilus amblops* Rafinesque, loc. cit., 51; not certainly identifiable.

Alburnops blennius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194, Arkansas River, near Fort Smith, Ark.

Hybognathus stramineus Cope, loc. cit., XVI, 1864, 283, Detroit River, Grosse Isle.

Hybopsis missouriensis Cope, Hayden's Geol. Surv. Wyo., 1870, 437, Missouri River, St. Joseph, Mo.

Notropis reticulatus Eigenmann and Eigenmann, Amer. Nat., 1893, 152, Fort Qu'Appelle, Assiniboia.

977. *Hybopsis winchelli* Girard.

Black Warrior River, Ala.

Hybopsis winchelli Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 211, Black Warrior River, Ala.

This species and the preceding may prove to be identical with *Hybopsis gracilis*. The synonymy of these little fishes is still unsettled.

978. *Hybopsis procne* (Cope). *Minnow*; *Minnie*; *Swallowminnow shiner*.

Delaware River and Cayuga Lake Basin southward in eastwise streams as far as the Neuse River, N. C.

Hybognathus procne Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 283, Conestoga River, a tributary of the Susquehanna.

Hybopsis longiceps Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 231, headwaters of James and Roanoke Rivers, Va.

979. *Hybopsis cummingsi* (Myers).

Streams near Wilmington, N. C.

Notropis cummingsi Myers, Amer. Mus. Novitates, No. 168, April 23, 1925, 1, fig. 1, upper Burnt Mill Creek, Wilmington, N. C.

980. *Hybopsis cayuga* (Meek).

Connecticut River, northern New York, and upper Mississippi Valley. *Notropis cayuga* Meek, Ann. Acad. Sci. N. Y., IV, 1888, 305, Cayuga Lake, N. Y.

981. *Hybopsis atrocaudalis* (Evermann).

Rio Neches, Palestine, Tex., also in Rio Comal at New Braunfels, Tex. *Notropis cayuga atrocaudalis* Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 76, Neches River, Palestine, Tex.

982. *Hybopsis keimi* (Fowler).

Allegheny River, western Pennsylvania.

Notropis keimi Fowler, Proc. Acad. Nat. Sci. Phila., LX, 1908, 533, Plate XXVII, tributary of Allegheny River, Port Allegheny, Pa.

983. *Hybopsis volucella* (Cope).

Michigan, Wisconsin, and northern Indiana.

Hybognathus volucellus Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 283, Grosse Isle, Detroit River, Mich.

984. *Hybopsis phenacobius* (Forbes).
Streams of central Illinois.
Notropis phenacobius Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, 2, 137, Peoria Ill.
985. *Hybopsis spectrunculus* Cope.
Headwaters of Tennessee River in Tennessee, Virginia, and North Carolina.
Hybopsis spectrunculus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 231, tributary of Middle Fork of Holston River, Va.
986. *Hybopsis shumardi* (Girard).
Missouri region and southwestward.
Alburnops shumardi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194, Arkansas River, Fort Smith, Ark.
Alburnops illecebrosus Girard, loc. cit., 194, Arkansas River, Fort Smith, Ark.
987. *Hybopsis boops* (Gilbert). *Bigeye minnow*.
Maumee River, west to Iowa and Missouri.
Notropis boops Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 201, Salt Creek, Brown County, Ind., and Flat Rock Creek, Decatur County, Ind.
988. *Hybopsis kanawha* (Jordan and Jenkins).
Tributaries of Kanawha River, southwestern Virginia.
Notropis kanawha Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1888, 354, Plate 44, fig. 5, Reed Creek, Wytheville, Va.
989. *Hybopsis piptolepis* (Cope).
North Platte River.
Photogenis piptolepis Cope, Hayden's Geol. Surv. Wyo., 1870, 438, Red Cloud Creek, a tributary of North Platte River.
990. *Hybopsis gilberti* (Jordan and Meek).
Illinois to eastern Colorado.
Notropis gilberti Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 4, Des Moines River and Village Creek, Ottumwa, Iowa; perhaps not distinct from *Hybopsis piptolepis*.
991. *Hybopsis horatii* (Cockerell).
Platte Basin.
Notropis horatii Cockerell, Science, XXXIV, No. 879, Nov. 3, 1911, 614, Julesburg, Colo.
992. *Hybopsis deliciosa* (Girard). *Straw-colored minnow*.
Michigan, and southwest to Arkansas.
? *Minnilus microstomus* Rafinesque, Ichth. Ohiensis, 1820, 47, Ohio River; not certainly identifiable.
? *Hybopsis dorsalis* Agassiz, Amer. Jour. Sci. Arts., XVII, 1854, 358, Burlington, Iowa; unidentifiable.
Moniana deliciosa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 199, Leon River, a tributary of the San Antonio River, Tex.
993. *Hybopsis deliciosa straminea* Cope. *Northern straw-colored minnow*.
Great Lakes region, mostly in small brooks, the northern form of *H. deliciosa*.
Hybopsis stramineus Cope, Trans. Amer. Phil. Soc., XIII, 1886, 381, Grosse Isle, Detroit River.
994. *Hybopsis calientis* (Jordan and Snyder).
Streams of central Mexico.
Notropis calientis Jordan and Snyder, Bull. U. S. Fish. Com., XIX, 1899 (1900), 122, fig. 4, Rio Verde at Aguas Calientes, Mexico.
995. *Hybopsis buchanani* (Meek).
Poteau River, Okla.
Notropis buchanani Meek, Bull. U. S. Fish. Com., XV, 1895 (1896), 342, Poteau River near Poteau, Ind. Ter.
996. *Hybopsis heterolepis* (Eigenmann and Eigenmann).
Notropis heterolepis Eigenmann and Eigenmann, Amer. Nat., 1893, 152, Cayuga Lake.
Notropis muskoka Meek, Field Col. Mus., Zool., I, 1898, 308, Muskoka Lake near Georgian Bay, Ontario.

997. *Hybopsis kendalli* (Evermann and Cockerell).
Cross Lake Thoroughfare, Me.
Notropis kendalli Evermann and Cockerell, Proc. Biol. Soc. Wash., XXII,
Dec. 8, 1909, Cross Lake Thoroughfare, Me.
998. *Hybopsis ozarcanus* (Meek).
White River, Ark.
Notropis ozarcanus Meek, Bull., U. S. Fish Com., IX, 1889 (1891), 129,
North Fork of White River, Ark.
999. *Hybopsis scylla* Cope.
Illinois River to western Kansas and Montana; abundant in the shallow
sandy streams of the plains.
?Alburnus lineolatus Agassiz, in Putnam, Bull., Mus. Comp. Zool., I,
1863, 9, Osage River, Mo.; unidentifiable.
Hybopsis scylla Cope, Hayden's Geol. Surv. Wyo., 1870, 438, Red
Cloud Creek, tributary of Platte River.
Chiola chlora Jordan, Bull. Hayden's Geol. Surv. Terr., IV, 1878, 791,
upper Missouri River.
1000. *Hybopsis longirostris* (Hay).
Chickasawha River, Miss., to Escambia River, Fla.
Alburnops longirostris Hay, Proc., U. S. Nat. Mus., III, 1880, 504,
Chickasawha River at Enterprise, Miss.
1001. *Hybopsis nocomis* (Evermann).
Trinity, San Marcos, and Comal Rivers, Tex.
Notropis nocomis Evermann, Bull. U. S. Fish Com., XI, 1891 (1892),
78, Trinity River, Palestine, Tex., and San Marcos River, San
Marcos, Tex.
1002. *Hybopsis ortenburgeri* (Hubbs).
Mountain Fork River, Okla.
Notropis ortenburgeri Hubbs, Proc. Okla. Acad. Sci., pt. 1, VI, Jan. 1,
1927, 127, Mountain Fork River, McCurtain County, Okla.
1003. *Hybopsis nux* (Evermann).
Neches and Trinity Rivers near Palestine, Tex.
Notropis nux Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 77,
Neches River, Palestine, Tex.
1004. *Hybopsis simus* (Cope).
Rio Grande at San Ildefonso, N. Mex.
Alburnellus simus Cope, Wheeler Surv., V, Zool., 1875, 649, San Ilde-
fonso, N. Mex.
1005. *Hybopsis sabinæ* (Jordan and Gilbert).
Sabine River, Tex.
Notropis sabinæ Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886,
15, Sabine River at Longview, Tex.
1006. *Hybopsis nitida* (Girard).
Tributaries of Rio San Juan at Cadereita, Nuevo Leon, Mexico.
Moniana nitida Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 201,
Cadereita, Mexico; not *Alburnus nitidus* Kirtland, also a *Notropis*
but not a *Hybopsis*.
Notropis braytoni Jordan and Evermann, Fishes North and Mid.
Amer., 1896, 264, Cadereita, Mexico; substitute for *M. nitida*
Girard, preoccupied.
- Subgenus CHRIOPE Jordan.
1007. *Hybopsis bifrenata* Cope. *Bridled minnow; Minnie.*
Maine to Maryland.
Hybopsis bifrenatus Cope, Trans., Amer. Phil. Soc., XIII, 1867, Schuyl-
kill River, Conshohocken, Pa.
1008. *Hybopsis maculata* (Hay).
Chickasawha River, Miss.
Hemitremia maculata Hay, Proc. U. S. Nat. Mus., III, 1880, 1505,
Chickasawha River, Enterprise, Miss.

1009. **Hybopsis anogenus** (Forbes).
Western New York (Cayuga Lake) to northern Illinois.
Notropis anogenus Forbes, Bull. Ill. Lab. Nat. Hist., II, 1885, Art. 2, 138, Fox River, McHenry, Ill.
1010. **Hybopsis heterodon** (Cope).
New York to Michigan and Kansas; common.
Alburnops heterodon Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 281, Lansing; Grosse Isle, Mich.
Notropis germanus Hay, Proc. U. S. Nat. Mus., X, 1887, 252, Smoky Hill River, Wallace, Kans.
1011. **Hybopsis heterodon richardsoni** (Hubbs and Greene).
Fox River System, tributary to Green Bay, Wis.
Notropis heterodon richardsoni Hubbs and Greene, Univ. Mich. Mus. Zool., Misc. Pub. 15, 1926, 39, Pl. III, fig. 1, Fox River, opposite Lock 25, Columbia County, Wis.
1012. **Hybopsis jordani** (Eigenmann and Eigenmann).
South Saskatchewan River, Medicine Hat, Assiniboia.
Notropis albeolus Eigenmann and Eigenmann, Amer. Nat., 1893, 152, Medicine Hat, Assiniboia; name preoccupied.
Notropis jordani Eigenmann and Eigenmann, loc. cit., 592, substitute for *Chriope albeolus*, preoccupied in *Notropis* but not in *Chriope*.
- Genus 333. **PLATYGOBIO** Gill.
Platygobio Gill, Trans. Amer. Phil. Soc., V, 1863, 178 (*Pogonichthys communis* Girard = *Cyprinus* (*Leuciscus*) *gracilis* Richardson).
1013. **Platygobio gracilis** (Richardson). *Flat-headed chub*.
East slope of the Rocky Mountains, from the Missouri and Yellowstone Rivers to the Saskatchewan; abundant in river channels as far south as Kansas City.
Cyprinus (*Leuciscus*) *gracilis* Richardson, Fauna Bor.-Amer., Fishes, 1836, 120, Saskatchewan River at Carleton House.
Coregonus angusticeps Cuvier and Valenciennes, Hist. Nat. Poiss., XXI, 1848, 389-390 (534), Saskatchewan River.
Pogonichthys communis Girard, Proc., Acad. Nat. Sci. Phila., VIII, 1856, 188, Yellowstone River, Fort Pierre, Nebr., etc.
Pogonichthys (*Platygobio*) *gulonellus* Cope, loc. cit., XVI, 1864, 277, near Bridgers Pass, Wyo.
1014. **Platygobio physignathus** (Cope).
Upper waters of Arkansas River; very abundant in the channels; the most common fish at Pueblo, Colo.
Ceratichthys physignathus Cope, Wheeler Surv., V, Zool., 1875 (1876), 651, Arkansas River, Pueblo, Colo.
1015. **Platygobio pallidus** Forbes.
One specimen from Ohio River at Cairo, Ill.
Platygobio pallidus Forbes, in Jordan and Gilbert, Synopsis, 1883, 220, Ohio River at Cairo, Ill.
- Genus 334. **COUESIUS** Jordan.
Couesius Jordan, Hayden's Geol. Surv. Terr., IV, 1878, 785 (*Nocomis milneri* Jordan = *Gobio plumbeus* Agassiz).
1016. **Couesius squamilentus** (Cope).
Henry Fork of Green River in southwestern Wyoming.
Ceratichthys squamilentus Cope, Hayden's Geol. Surv. Wyo., 1870, 442, Henry Fork of Green River, Wyo., Colorado Basin.
1017. **Couesius plumbeus** (Agassiz). *Chub minnow*; *Lake chub*; *Plumbeus minnow*; *Moose Lake minnow*.
Streams and lakes from Lake Superior east to the Adirondack region and New Brunswick; not very common except northward.
Gobio plumbeus Agassiz, Lake Superior, 1850, 366, Lake Superior.
Ceratichthys prothemius Cope, Trans. Amer. Phil. Soc., XIII, 1867, Montreal River, Keweenaw Point, Lake Superior.
Nocomis milneri Jordan, Bull. U. S. Nat. Mus., X, 1877, 64, Lake Superior.

1018. *Couesius greeni* Jordan.
Stuart Lake, headwaters of Fraser River, British Columbia, and Lake Pend d'Oreille, Idaho.
Couesius greeni Jordan, Proc. U. S. Nat. Mus., XVI, 1893, 313, Stuarts Lake, British Columbia.
1019. *Couesius dissimilis* (Girard).
Upper Missouri and Black Hills region.
Leucosomus dissimilis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 189, Milk River and Little Muddy River, Mont.
1020. *Couesius adustus* Woolman.
Rio de los Conchos, Chihuahua, Mexico.
Couesius adustus Woolman, Bull. U. S. Fish Com., XIV, 1894, 57, Rio de los Conchos, Chihuahua, Mexico.
- Genus 335. *NOCOMIS* Girard.
Nocomis Girard, Proc. Acad. Nat. Sci. Phila., 1856, 190 (*N. nebrascensis* Girard = *Luxilus kentuckiensis* Rafinesque).
Ceraticthys Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 391 (*C. vigilax* Baird and Girard; not of Baird and Girard, 1856); no description.
1021. *Nocomis kentuckiensis* (Rafinesque). *Chub; Hornyhead; River chub; Jerker; Indian chub.*
Pennsylvania to Wyoming and Alabama, on both sides of the Alleghenies; abundant in the larger streams.
Luxilus kentuckiensis Rafinesque, Ichth. Ohioensis, 1820, 48, Ohio River.
? *Catostomus melanotus* Rafinesque, loc. cit., 58, Ohio River at the falls.
Semotilus biguttatus Kirtland, Bost. Jour. Nat. Hist., III, 1840, 344, Pl. V, Yellow Creek, Ohio.
Nocomis nebrascensis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 190, Sweetwater River, Nebr.
Ceraticthys leptcephalus Girard, loc. cit., 213, Salem, N. C.
Nocomis bellicus Girard, loc. cit., 213, Black Warrior River.
Ceraticthys cyclois Cope, loc. cit., XVI, 1864, 277, Grosse Isle, Waterford; Clinton River and Bruce, Mich.
Ceraticthys stigmaticus Cope, loc. cit., 1864, 278, Michigan.
1022. *Nocomis micropogon* (Cope).
Streams of Pennsylvania.
Ceraticthys micropogon Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 277, Conestoga River near Lancaster, Pa.
- Genus 336. *YURIRIA* Jordan and Evermann
Yuriria Jordan and Evermann, Fishes North and Mid. Amer., 1896, 321 (*Hudsonius altus* Jordan).
1023. *Yuriria alta* (Jordan). *Pesca blanca.*
Lakes and streams of Guanajuato, tributary to Rio Lerma, Mexico, in Pacific drainage.
Hudsonius altus Jordan, Proc. U. S. Nat. Mus., II, 1879, 301, Lake Tupatara, Guanajuato, Mexico.
- Genus 337. *ERINEMUS* Jordan
Erinemus Jordan, Man. Vert., 1876, 279 (*Ceraticthys hyalinus* Cope).
1024. *Erinemus storerianus* (Kirtland). *Storer's chub; Lake minnow.*
Great Lakes and westward to Wyoming, Tennessee, and Arkansas; abundant in the larger streams and lakes, especially in Iowa.
Rutilus storerianus Kirtland, Proc. Bost. Soc. Nat. Hist., I, 1842, 71, Lake Erie (name only); description given as *Leuciscus storerianus* in Bost. Jour. Nat. Hist., V, 1845, 30, Pl. I, fig. 2.
Gobio vernalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 189, Arkansas River, Fort Smith, Ark.
Ceraticthys lucens Jordan, Proc. U. S. Nat. Mus., II, 1879, 238, Falls of Ohio River near New Albany, Ind.
1025. *Erinemus hyalinus* (Cope). *Silver chub.*
Ceraticthys hyalinus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 226, tributary of Holston River.

1026. *Erinemus labrosus* (Cope).
Basin of the Santee in North and South Carolina; common.
Ceratichthys labrosus Cope, Proc. Amer. Phil. Soc., XI, 1870, 458,
tributaries of Catawba River, McDowell and Burke Counties, N. C.
Ceratichthys zanemus Jordan and Brayton, Bull. U. S. Nat. Mus., XII,
1878, 24, Saluda River, Greenville, N. C.
1027. *Erinemus hypsinotus* (Cope).
Santee Basin, in North and South Carolina.
Ceratichthys hypsinotus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870,
458, tributaries of Catawba River, McDowell County, N. C.
1028. *Erinemus rubrifrons* (Jordan).
Basin of the Altamaha, Ga.
Nocomis rubrifrons Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876,
330, Ocmulgee River, Flat Rock, Ga.
- Genus 338. **ERIMYSTAX** Jordan.
Erimystax Jordan, Rept. Geol. Surv. Ohio, IV, 1882, 858 (*Luxilus dissimilis* Kirtland).
1029. *Erimystax dissimilis* (Kirtland). *Spotted shiner*.
Lake Erie to the headwaters of the Tennessee and west to Arkansas
and Iowa.
Luxilus dissimilis Kirtland, Bost. Jour. Nat. Hist., III, 1840, 341, pl.
4, fig. 2, Mahoning River, Ohio, and Lake Erie near Cleveland,
Ohio.
1030. *Erimystax watauga* (Jordan and Evermann).
Holston River, Va.; Watauga River, Tenn.; White River, Ark.;
Big Barren River, Ky.; and Tippecanoe River, Ind.
Hybopsis watauga Jordan and Evermann, Proc. U. S. Nat. Mus., XI,
1888, 355, Watauga River, Elizabethtown, Tenn.; North Fork of
Holston River, Saltville, Va.
- Genus 339. **ERIMONAX** Jordan.
Erimonax Jordan, Copeia, 1924, 52 (*Ceratichthys monacus* Cope).
1031. *Erimonax monacus* (Cope).
Tennessee Basin in the river channels.
Ceratichthys monacus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 227,
Holston River, Washington County, Va.
- Genus 340. **OREGONICHTHYS** Hubbs.
Oregonichthys Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., 1927
(*Hybopsis crameri* Snyder).
1032. *Oregonichthys crameri* (Snyder).
Hybopsis crameri Snyder, Bull. U. S. Bur. Fish., XXVII, 1907, 181,
fig. 5, Willamette River at Oregon City, Oreg.
1033. *Oregonichthys cumingii* (Günther).
California; only the type known.
Ceratichthys cumingii Günther, Cat., VII, 1868, 177, California; type
locality uncertain.
- Genus 341. **MACRHYBOPSIS** Cockerell and Alliston.
Macrhybopsis Cockerell and Alliston, Proc. Biol. Soc. Wash., XXII,
1909, 162 (*Gobio gelidus* Girard).
1034. *Macrhybopsis æstivalis* (Girard).
Arkansas River to the Rio Grande; abundant in sandy river channels,
not in small brooks.
Gobio æstivalis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 189,
Rio San Juan, near Cadereita, Nuevo Leon.
1035. *Macrhybopsis marconis* (Jordan and Gilbert).
Abundant in Rio San Marcos, San Marcos, Tex.; also known from the
Guadalupe River near San Marcos and the Rio Comal at New
Braunfels, Tex.
Hybopsis æstivalis marconis Jordan and Gilbert, Proc. U. S. Nat. Mus.,
IX, 1886, 22, Rio San Marcos, San Marcos, Tex.

1036. *Macrhybopsis sterletus* (Cope).
Rio Grande.
Ceratichthys sterletus Cope, Wheeler Surv., V, Zool., 1875 (1876), 652,
Rio Grande, at San Ildefonso, New Mexico.
1037. *Macrhybopsis gelida* (Girard).
Middle Missouri River Basin, from Wyoming to eastern Nebraska.
Gobio gelidus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 188,
Milk River, Mont.
1038. *Macrhybopsis montana* (Meek).
Type supposed to be from the upper Missouri.
Hybopsis montanus Meek, Proc. U. S. Nat. Mus., VII, 1884, 526,
locality unknown but collected by Dr. F. V. Hayden, probably in
the upper Missouri Basin.
1039. *Macrhybopsis meeki* (Jordan and Evermann).
Missouri River at St. Joseph and elsewhere in the river channel.
Hybopsis meeki Jordan and Evermann, Fish. North and Mid. Amer.,
1896, 317, Missouri River at St. Joseph, Mo.
1040. *Macrhybopsis hyostoma* (Gilbert).
Indiana to Iowa, and south to the Alabama River.
Nocomis hyostomus Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 203,
White River, Bedford, Ind.
- Genus 342. **EXTRARIUS** Jordan.
Extrarius Jordan, Proc. Acad. Nat. Sci. Phila., LXX, 1918, 342 (*Hy-*
bopsis tetranemus Gilbert).
1041. *Extrarius tetranemus* (Gilbert).
Tributaries of Arkansas River in Kansas and Arkansas.
Hybopsis tetranemus Gilbert, Bull. Washburn Lab. Nat. Hist., 1886,
208, Elm and Spring Creeks, Medicine Lodge, Kans.
- Genus 343. **RHINICHTHYS** Agassiz.
Argyreus Heckel, Russegger's Reisen, 1842 (*Cyprinus atronasus* Mitchell;
name preoccupied).
Rhinichthys Agassiz, Lake Superior, 1850, 353 (*Cyprinus atronasus*
Mitchill).
1042. *Rhinichthys cataractæ* (Cuvier and Valenciennes). *Long-nosed dace*;
Black-nosed dace; *Black minnow*; *Niagara gudgeon*.
New England to Virginia and Wisconsin.
Gobio cataractæ Cuvier and Valenciennes, Hist. Nat. Poiss., XVI, 1842,
240 (315), pl. 483, Niagara Falls.
Leuciscus nasutus Ayres, Jour. Bost. Soc. Nat. Hist., IV, 1843, 299,
West Hartford, Conn.
Rhinichthys marmoratus Agassiz, Lake Superior, 1850, 354, Pl. II, figs.
1 and 2, Sault Ste. Marie, Lake Superior.
1043. *Rhinichthys bowersi* Goldsborough and Clark.
Rhinichthys bowersi Goldsborough and Clark, Bull. U. S. Bur. Fish.,
XXVII, 1907, 36, Dry Fork, Herman, W. Va.
1044. *Rhinichthys dulcis* (Girard).
Upper Missouri, Platte, Arkansas, Rio Grande, and Colorado Rivers;
Columbia River; Utah Basin; and coastwise streams of Washington
and Oregon.
Argyreus dulcis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 185,
Sweetwater River, Nebr.
Rhinichthys maxillosus Cope, loc. cit., XVI, 1864, 278, Kansas.
Rhinichthys transmontanus Cope, Amer. Nat., 1879, 441, tributaries of
Rio Grande in Colorado and New Mexico.
Rhinichthys ocella Garman, Science Observer, III, 1881, 59, northeastern
Wyoming and Montana.
Rhinichthys luteus Garman, Bull. Mus. Comp. Zool., VIII, 1881, 87,
Bear River, Ogden, Utah.

1045. **Rhinichthys atronasmus** (Mitchill). *Dace; Black-nosed dace; Brook minnow; Striped dace.*
New England to Minnesota, northern Alabama, and Virginia; very abundant in clear brooks and mountain streams.
Cyprinus atronasmus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 460, Wallkill River; brooks of New York.
Cyprinus vittatus Rafinesque, Amer. Month. Mag., II, 1817, 121, upper Hudson River.
1046. **Rhinichthys croceus** (Storer).
Tennessee Basin; abundant in clear brooks.
Leuciscus croceus Storer, Proc. Bost. Soc. Nat. Hist., 1845, 48, Florence, Ala.
Rhinichthys obtusus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 357, Huntsville, Ala.
Rhinichthys badius Garman, Science Observer, III, 1881, 60, Clinch River, Tenn.
1047. **Rhinichthys lunatus** Cope.
Lakes and brooks of Michigan, Indiana, Wisconsin, and Minnesota, and in Rainy River.
Rhinichthys lunatus Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 278, Grosse Isle, Mich.
Rhinichthys arenatus Garman, Science Observer, 1881, 62, Sand Hill River, Minn.
1048. **Rhinichthys meleagris** Agassiz.
Illinois and Iowa.
Rhinichthys meleagris Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 357, Burlington, Iowa.
1049. **Rhinichthys simus** Garman.
Coahuila, Mexico.
Rhinichthys simus Garman, Science Observer, III, 1881, 61, Coahuila, Mexico.
- Genus 344. **AGOSIA** Girard.
Agosia Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 186 (*Agosia chrysogaster* Girard).
Zophendum Jordan and Gilbert, Synopsis, 1883, 155 (*Hybognathus siderius* Cope = *Agosia chrysogaster* Girard).
1050. **Agosia chrysogaster** Girard.
Tributaries of the Gila River; common in the mountain brooks.
Agosia chrysogaster Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 187, Rio Santa Cruz, Sonora.
Agosia metallica Girard, loc. cit., 1856, 187, Rio San Pedro, Ariz.
Hyborhynchus (*Hybognathus*) *siderius* Cope, Wheeler Surv., V, Zool., 1875, 670, Pl. XXXI, figs. 6 and 6a, Camp Lowell, Ariz.
- Genus 345. **APOCOPE** Cope.
Apocope Cope, Hayden's Geol. Surv. Mont., etc., 1871 (1872), 472 (*A. carringtoni* Cope).
Eritrema Cope, Wheeler's Surv., V, Zool., 1876, 645 (*Apocope henshavi* Cope).
1051. **Apocope nubila** (Girard).
Basin of the Columbia River from western Idaho, below Shoshone Falls of Snake River, to the coast, and in coastwise streams from Washington southward into Oregon.
Argyreus nubilus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 186, Fort Steilacoom, Puget Sound.
1052. **Apocope robusta** (Rutter).
Upper Sacramento Basin.
Agosia robusta Rutter, Bull. U. S. Fish Com., XXII, 1902, 148, Prosser Creek, Calif.

1053. **Apocope carringtonii** Cope.
Upper Snake River Basin to Heart Lake in Yellowstone Park, thence extending southward in the Great Basin and the Coast Ranges; southeastern Oregon.
Apocope carringtonii Cope, Hayden's Geol. Surv. Mont., 1871, 472, Warm Springs, Utah.
Apocope vulnerata Cope, loc. cit., 473, Logan, Utah.
Tigoma rhinichthyoides Cope, loc. cit., 473, Logan, Utah.
Rhinichthys henshawi Cope, Proc. Amer. Phil. Soc., XIV, 1874, 133, Provo, Utah.
Agosia novemradiata Cope, Proc. Acad. Nat. Sci. Phila., XXV, 1883, 141, Weber River at Echo, Utah.
1054. **Apocope oscula** (Girard).
Lower Colorado and Gila Rivers; not rare.
Argyreus osculus Girard, Proc. Acad. Nat. Sci. Phila., 1856, 186, Babocomori Creek, a tributary of the Rio San Pedro, Ariz.
Argyreus notabilis Girard, loc. cit., 1856, 186, Rio Santa Cruz, Sonora, a tributary of the Rio San Pedro, Ariz.
Ceratichthys ventricosus Cope, Proc. Amer. Phil. Soc., XXV, 1874, 136, Ariz.
1055. **Apocope couesii** Yarrow.
Colorado River Basin.
Apocope couesii Yarrow, Field and Forest, 1876, and Wheeler Surv., V, Zool., 1875, 648, Camp Apache, Ariz.
1056. **Apocope yarrowi** (Jordan and Evermann).
Streams of Colorado in the Colorado River Basin.
Agosia yarrowi Jordan and Evermann, Bull. U. S. Fish Com., IX, 1889 (1891), 28, Tomichi Creek and Gunnison River, Gunnison, Colo.
1057. **Apocope adobe** (Jordan and Evermann).
Sevier River, Utah; locally abundant.
Agosia adobe Jordan and Evermann, Bull. U. S. Fish Com., IX, 1889 (1891), Sevier River, Juab, Utah.
1058. **Apocope klamathensis** (Evermann and Meek).
Agosia klamathensis Evermann and Meek, Bull. U. S. Fish Com., XVII, 1897 (1898), 75, 9, fig. 5, Pelican Bay, Upper Klamath Lake, Oreg.
1059. **Apocope nevadensis** (Gilbert).
Warm springs in the deserts of southwestern Nevada; Ash Meadows, Indian Creek, and Vegas Creek, Nev.
Rhinichthys (*Apocope*) *nevadensis* Gilbert, Death Valley Exped., 1893, 230, pl. 6, fig. 1, Ash Meadows, Amargosa Desert, Nev.
1060. **Apocope velifera** (Gilbert).
Pahranagat Valley, southwestern Nevada.
Rhinichthys (*Apocope*) *velifer* Gilbert, Death Valley Exped., 1893, 229, pl. 6, fig. 2, Pahranagat Valley, Nev.
1061. **Apocope falcata** (Eigenmann and Eigenmann).
Columbia River Basin; locally abundant; Boise River at Caldwell, Idaho; Payette River at Payette, Idaho; Columbia River at Pasco and Umatilla; and Mill Creek at Walla Walla.
Agosia falcata Eigenmann and Eigenmann, Amer. Nat., XXVII, Feb. 4, 1893, 153, Boise River, Caldwell, Idaho.
1062. **Apocope umatilla** (Gilbert and Evermann).
Columbia River at Umatilla, Oreg., and Payette and Salmon Rivers, Idaho.
Agosia umatilla Gilbert and Evermann, Bull. U. S. Fish Com., XIV, 1894, 192, pl. 9, fig. 2, Columbia River, Umatilla, Oreg.
- Genus 346. **ERICYMBA** Cope.
Ericymba Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 88 (*E. buccata* Cope).

1063. **Ericymba buccata** Cope. *Silver-mouthed minnow*.
Michigan and western Pennsylvania to Kansas and southward to western Florida.
Ericymba buccata Cope, Proc., Acad. Nat. Sci. Phila., XVII, 1865, 88, Kiskiminitas River, a tributary of the Monongahela, western Pennsylvania.
- Genus 347. **PHENACOBIOUS** Cope.
Phenacobius Cope, Proc., Acad. Nat. Sci. Phila., XIX, 1867, 96 (*P. teretulus* Cope).
Sarcidium Cope, Hayden's Geol. Surv. Wyo., 1870, 363 (*S. scopiferum* Cope).
1064. **Phenacobius teretulus** Cope.
Kanawha River, W. Va.
Phenacobius teretulus Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 96, Kanawha River, Eggleston Springs, W. Va.
1065. **Phenacobius mirabilis** (Girard). *Sucker-mouthed minnow*.
Illinois to Arkansas.
Exoglossum mirabile Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 191, Arkansas River, Fort Smith, Ark.
1066. **Phenacobius scopifer** (Cope).
Illinois to the Rio Grande.
Sarcidium scopiferum Cope, Hayden's Geol. Surv. Wyo., 1870 (1871), 440, Missouri River near St. Joseph, Mo.
Phenacobius teretulus liosternus Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 46, brooks of McLean County, Ill.
1067. **Phenacobius uranops** Cope.
Upper Tennessee Basin.
Phenacobius uranops Cope, Proc. Acad. Nat. Sci. Phila., XIX, 1867, 96, Holston River, Saltville, Va.
1068. **Phenacobius catostomus** Jordan.
Alabama River Basin.
Phenacobius catostomus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 332, Silver Creek, Etowah River, Rome, Ga.
- Genus 348. **FALCULARIUS** Jordan and Snyder.
Falcula Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 124 (*Falcula chapalæ* Jordan and Snyder); name preoccupied.
Falcularius Jordan, Amer. Nat., XXXVII, 1903, 360 (*Falcula chapalæ* Jordan and Snyder).
1069. **Falcularius chapalæ** (Jordan and Snyder).
Lake Chapala, Mexico.
Falcula chapalæ Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 124, Lake Chapala at Ocotlan, Mexico.
- Genus 349. **XYSTROSUS** Jordan and Snyder.
Xystrosus Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 123 (*X. popoche* Jordan and Snyder).
1070. **Xystrosus popoche** Jordan and Snyder.
Basin of the Rio Lerma, Mexico.
Xystrosus popoche Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 123, Lake Chapala at Ocotlan, Jalisco, Mexico.
- Genus 350. **EVARRA** Woolman.
Evarra Woolman, Bull. U. S. Fish Com., XIV, 1894, 64 (*E. eigenmanni* Woolman).
1071. **Evarra eigenmanni** Woolman.
Central Mexico.
Evarra eigenmanni Woolman, Bull. U. S. Fish Com., XIV, 1894, 64, City of Mexico.
1072. **Evarra tlahuacensis** Meek.
Chalco Lake, Tlahuac, Mexico.
Evarra tlahuacensis Meek, Field Col. Mus., Zool., III, 1902, 85, Pl. XVIII, lower figure, Chalco Lake, Tlahuac, Mexico.

Genus 351. TIAROGA Girard.

Tiaroga Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 204 (*T. cobitis* Girard).

1073. Tiaroga cobitis Girard.

Gila Basin, Ariz.

Tiaroga cobitis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 204, Rio San Pedro, Ariz.

Genus 352. AZTECULA Jordan and Evermann.

Azteca Jordan and Evermann, Fishes North and Mid. Amer., 1896, 254 (*Notropis aztecus* Woolman); name preoccupied.

Aztecula Jordan and Evermann, loc. cit., 1898, 2799, (*Notropis aztecus* Woolman = *Codoma vittata* Girard).

1074. Aztecula vittata (Girard).

Valley of Mexico and headwaters of the Rio Balsas at Pueblo, Mexico. *Codoma vittata* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 195, Valley of Mexico.

Notropis aztecus Woolman, Bull. U. S. Fish Com., XIV, 1894, 63, pl. 2, canals about City of Mexico.

1075. Aztecula mexicana Meek.

Basin of Rio San Juan on the Mexican plateau.

Aztecula mexicana Meek, Field Col. Mus., Zool., III, 1902, 81, figured; loc. cit., V, 1904, 62, fig. 15; San Juan del Rio, Mexico.

1076. Aztecula lermæ (Evermann and Goldsborough).

Basin of Rio Lerma.

Notropis lermæ Evermann and Goldsborough, Bull. U. S. Fish. Com., XXI, 1901 (1902), 147, fig. 3, Lake Lerma, at Lerma, Mexico.

Genus 353. CODOMA Girard.

Codoma Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 194 (*C. ornata* Girard).

1077. Codoma ornata Girard.

Headwaters of the Rio Nezquitel and Rio Nazas in Durango to upper tributaries of the Rio Yaqui and Rio Conchos in Chihuahua, Mexico.

Codoma ornata Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 195, Chihuahua River, Mexico.

1078. Codoma topeka (Gilbert).

Western Iowa and eastern South Dakota to Kansas; locally abundant in the prairie streams.

Notropis topeka Gilbert, Bull. Washburn Lab. Nat. Hist., I, 1884, 13, tributary of Kansas River, Topeka, Kans.

Notropis æneolus Hay, Proc. U. S. Nat. Mus., X, 1887, 245, Solomon River, Wakeeney, Kans.

Genus 354. HYBOGNATHUS Agassiz.

Hybognathus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 223 (*H. nuchalis* Agassiz).

1079. Hybognathus nuchalis Agassiz. Gudgeon; Smelt; Silvery minnow; Smelt minnow.

Clear streams from the upper Missouri southward to Georgia and Texas, west of the Alleghenies.

Hybognathus nuchalis Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 224, Quincy, Ill.

Hybognathus evansi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182, Fort Pierre, Nebr.

Hybognathus placitus Girard, loc. cit., 1856, 182, sluices of the Arkansas River.

1080. Hybognathus regius Girard. Gudgeon; Silvery minnow.

Streams New Jersey to Virginia, east of the Alleghenies.

Hybognathus regius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 209, Potomac River.

Hybognathus osmerinus Cope, Proc. Amer. Phil. Soc., XI, 1870, 466, Raritan River, N. J.

1081. *Hybognathus argyritis* Girard.
Upper Missouri region and Red River of the North.
Hybognathus argyritis Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 182, Milk River, Mont.
1082. *Hybognathus hayi* Jordan.
Lower Mississippi Valley and neighboring rivers in Mississippi.
Hybognathus hayi Jordan, Proc. U. S. Nat. Mus., VII, 1884, 548, Pearl River, Jackson, Miss.; this and three preceding are all very close to *Hybognathus nuchalis*.
- Genus 355. *DIONDA* Girard.
Dionda Girard, Proc. Acad. Nat. Sci. Phila.; VIII, 176 (*D. episcopa* Girard).
Algoma Girard, loc. cit., 180 (*A. amara* Girard).
1083. *Dionda episcopa* Girard.
Southern Texas and northern Mexico; south to the Rio Mezquital in Durango and the Rio San Juan in Nuevo Leon.
Dionda episcopa Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 177, headwaters of Pecos River and Comanche Spring, tributary to the Rio Grande, Tex.
Dionda texensis Girard, loc. cit., 177, Nueces River, Tex.
Dionda papalis Girard, loc. cit., 178, Delaware Creek, a tributary of Pecos River, Tex.
Dionda argentosa Girard, loc. cit., 178, San Felipe Creek and Devils River, tributaries of Rio Grande.
Dionda chrysis Girard, loc. cit., 178, Live Oak Creek, a tributary of the Pecos.
Dionda couchi Girard, loc. cit., 178, Guajuco, Monterey, and Cadereita, Nuevo Leon.
Hybognathus flavipinnis Cope, Bull. U. S. Nat. Mus., XVII, 1880, 36, Johnsons Fork of Llano River, Tex.
Hybognathus nigrotæniata Cope, loc. cit., 37, Wallace Creek, a tributary of Medina River, Tex.
Hybognathus (Dionda) punctifer Garman, Bull. Mus. Comp. Zool., VIII, 1881, 89, Parras and spring near Saltillo, Mexico.
Hybognathus civilis Cope, Trans. Amer. Phil. Soc., 1884, 167, Monterey, Nuevo Leon.
1084. *Dionda serena* Girard.
Sabinal River, Tex.
Dionda serena Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 177, Sabinal River, Tex.
1085. *Dionda amara* (Girard)
Near Fort Brown, Tex.
Algoma amara Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 180, Lagoon near Fort Brown, Tex.
1086. *Dionda melanops* Girard.
Coahuila, Mexico.
Dionda melanops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 178, Buena Vista, Coahuila.
1087. *Dionda nubila* (Forbes).
Western Illinois, west to Wyoming and southwest to the Ozark region.
Alburnops nubilus Forbes, Bull. Ill. Lab. Nat. Hist., I, 1878, 56, Rock River, Ogle County, Ill.
1088. *Dionda plumbea* Girard.
Tributaries of Arkansas River, in Oklahoma.
Dionda plumbea Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 178, Canadian River, Okla.
Dionda spadicea Girard, loc. cit., 178, Fort Smith, Ark.
Dionda grisea Girard, Pac. R. R. Surv., X, 1858, 230, Pl. LII, figs. 6-10, near Choctaw Agency.
- Genus 356. *CERATICHTHYS* Baird and Girard.
Ceraticthys Baird and Girard, Proc., Acad. Nat. Sci. Phila., VI, 1853, 391 (*C. vigilax*; misprinted *Ceraticthys*, not of Girard, 1856).
Cliola Girard, loc. cit., VIII, 1856, 192 (*Ceraticthys vigilax* Baird and Girard).
Hypargyrus Forbes, in Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 200 (*Hybopsis tuditanus* Cope).

1089. *Ceratichthys vigilax* Baird and Girard. *Bullhead minnow; Fathead minnow.*
Ohio to Georgia, Iowa, and Texas.
Ceratichthys vigilax Baird and Girard, Proc., Acad. Nat. Sci. Phila., VI, 1853, 391, Otter Creek, North fork of Red River, Ark.
Cliola velox Girard, loc. cit., VIII, 1856, 192, San Pedro Creek and
Cliola vivax, Rio Leon, tributaries of Rio San Antonio, Tex.
Hybopsis tuditanus Cope, Trans., Amer. Phil. Soc., XIII, 1866, 381, Detroit, Mich.
Alburnops taurocephalus Hay, Proc. U. S. Nat. Mus., 1880, 503, Chickasawha River, Miss.
1090. *Ceratichthys smithi* (Evermann and Cox).
Southern South Dakota; known only from Prairie Creek near Scotland.
Cliola smithii Evermann and Cox, Rept. U. S. Fish Com., XIX, 1894 (1896), 400, Prairie Creek, Scotland, S. Dak.
- Genus 357. **HYBORHYNCHUS** Agassiz.
Hyborhynchus Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 223 (*Minnilus notatus* Rafinesque).
1091. *Hyborhynchus notatus* (Rafinesque). *Blunt-nosed minnow; Spotted minnow.*
Quebec to Delaware; Kentucky, Alabama, Arkansas, and northward to the Dakotas; generally very abundant in small streams west of the Alleghenies.
Minnilus notatus Rafinesque, Ichth. Ohiensis, 1820, 47, Ohio River.
Hyborhynchus perspicuus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 179, Arkansas River, Fort Smith.
? *Hyborhynchus tenellus* Girard, loc. cit., 179, Choctaw Agency.
Hyborhynchus puniceus Girard, loc. cit., 179, Antelope Creek, Canadian River.
Hybopsis hæmaturus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 382, St. Joseph River, Michigan City, Ind.
? *Hyborhynchus superciliosus* Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 234, Kanawha River.
- Genus 358. **PIMEPHALES** Rafinesque. *Fatheads.*
Pimephales Rafinesque, Ichth. Ohiensis, 1820, 52 (*P. promelas* Rafinesque).
Coliscus Cope, Hayden's Geol. Surv. Wyo., 1872, 437 (*Coliscus parietalis* Cope; young of *Pimephales promelas*).
Spinicephalus LeSueur, Bull. Sci. Philom., VIII, 1896, 14, pl. 26 (*S. filulatus* LeSueur = *Pimephales promelas* Rafinesque).
1092. *Pimephales promelas* Rafinesque. *Fathead minnow; Blackhead minnow.*
Lake Champlain to Kentucky, Dakota, and the Rio Grande; abundant in sluggish brooks, especially in the Missouri Basin.
Pimephales promelas Rafinesque, Ichth. Ohiensis, 1820, 53, pond near Lexington, Ky.
Pimephales maculosus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 180, sluices of the Arkansas River, Fort Makee, Ark.
Pimephales fasciatus Girard, loc. cit., 180, Yellowstone River.
Plargyrus melanocephalus Abbott, loc. cit., XII, 1860, 325, Lake Whittlesey, Minn.
Pimephales milesi Cope, loc. cit., XVI, 1864, 282, Grosse Isle, Detroit River, Mich.
Pimephales agassizii Cope, Trans. Amer. Phil. Soc., XIII, 1866, 394, tributary of Ohio River, near Richmond, Ind.
Coliscus parietalis Cope, Hayden's Geol. Surv. Wyo., 1871, 437, St. Joseph, Mo.; young.
Hyborhynchus nigrellus Cope, Wheeler's Surv., V, Zool., 1875, 671, Arkansas River.
Spinicephalus fibulatus LeSueur, Bull. Soc. Philom., VIII, 1896, pl. 26; no locality.
1093. *Pimephales confertus* (Girard).
Tributaries of the Rio Grande.
Hyborhynchus confertus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 179, Hurrah Creek, a tributary of the Pecos River, Tex.

1094. Pimephales anuli Kendall.

Thoroughfare between Mud and Grass Lakes, Me.

Pimephales anuli Kendall, Bull. U. S. Fish Com., XXII, 1902, 257, between Mud Lake and Grass Lake, Me.

Genus 359. COCHLOGNATHUS Baird and Girard.

Cochlognathus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 158 (*C. ornatus* Baird and Girard).

1095. Cochlognathus ornatus Baird and Girard.

Rio Grande Basin.

Cochlognathus ornatus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 158, Brownsville, Tex.

1096. Cochlognathus biguttatus Cope.

Trinity River, Tex.

Cochlognathus biguttatus Cope, Bull. U. S. Nat. Mus., XVII, 1880, 37, Trinity River, Fort Worth, Tex.

Genus 360. EXOGLOSSUM Rafinesque.

Exoglossum Rafinesque, Jour., Acad. Nat. Sci. Phila., I, 1818, 419

(*E. lesueurianum* Rafinesque = *Cyprinus maxillingua* LeSueur).

Maxillingua Rafinesque, loc. cit., 421 (*Cyprinus maxillingua* LeSueur).

1097. Exoglossum maxillingua (LeSueur). *Cut-lips; Nigger chub; Nigger dick; Butter chub; Niggerfish.*

Lake Ontario, St. Lawrence River, Lake Champlain, Hudson River, and Cayuga Lake, and southward to Virginia; abundant in the basins of the Susquehanna, Hudson, Potomac, James, Roanoke, and Kanawha, but not widely distributed.

Cyprinus maxillingua LeSueur. Jour. Acad. Nat. Sci. Phila., I, 1817, 85, Pipe Creek, Md.

Exoglossum annulatum Rafinesque, loc. cit., 1818, 421, Hudson River.

Exoglossum nigrescens Rafinesque, loc. cit., 422, Hudson River.

Exoglossum lesurianum Rafinesque, loc. cit., 420; after LeSueur.

Genus 361. CAMPOSTOMA Agassiz. *Stonerollers.*

Campostoma Agassiz, Amer. Jour. Sci. Arts, XIX, 1855, 218 (*Rutilus anomalus* Rafinesque).

1098. Campostoma anomalum (Rafinesque). *Stoneroller; Greased chub;*

Blue sucker; Rotgut minnow; Mammy; Doughbelly; Steel-backed chub.

Central New York to Tennessee, Wyoming, and Texas.

Rutilus anomalus Rafinesque, Ichth. Ohiensis, 1820, 52, Licking River, Ky.

Exoglossum spinicephalum Cuvier and Valenciennes, Hist. Nat. Poiss., XVII, 1844, 363 (489), Wabash River.

Leuciscus prolixus Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 48, Alabama.

Exoglossum dubium Kirtland, Bost. Jour. Nat. Hist., V, 1845, 272, Yellow Creek, Ohio.

Chondrostoma pullum Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 357, Burlington, Iowa.

Campostoma nasutum Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 176, Cadereita, and near Monterey, Nuevo Leon, Mexico.

Campostoma callipteryx Cope, loc. cit., XVI, 1864, 284, Flint River, Mich.

Campostoma mormyrus Cope, loc. cit., 284, Bruce, Macomb County, Mich.

Campostoma gobionium Cope, loc. cit., 284, Bruce, Macomb County, and Grosse Isle, Mich.

Campostoma hippops Cope, loc. cit., 284, Platte River, Nebr.

Campostoma brevis Haseman, Proc. Ind. Acad. Sci., 1905 (1906), 161, Wabash River near Wabash, Ind.

1099. Campostoma ornatum Girard.

Chihuahua River, and tributaries of the Rio Grande in Mexico.

Campostoma ornatum Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 176, Chihuahua, Mexico.

1100. *Campostoma pricei* Jordan and Thoburn.
Rio Yaqui, Sonora and neighboring streams, tributary to the Gulf of California.
Campostoma pricei Jordan and Thoburn, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 203; Rucker Canyon, Chiricahua Mountains, Ariz., very near *C. ornatum*.
1101. *Campostoma formosulum* Girard.
Texas; San Antonio River to the Rio Grande.
Campostoma formosulum Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 176, Rio Sabinal, near San Antonio, Tex.

Family 91. MEDIDÆ

Genus 362. LEPIDOMEDA Cope.

Lepidomeda Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 131 (*L. vittata* Cope).

1102. *Lepidomeda vittata* Cope.
Known only from the Colorado Chiquito River, Ariz., and from Pahrn-agat Valley, Nev.
Lepidomeda vittata Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 131, Rio Colorado Chiquito, Ariz.
1103. *Lepidomeda jarrovi* Cope.
Colorado Chiquito River, Ariz.; also in southern Nevada, in springs in the desert.
Lepidomeda jarrovi Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 132, Rio Colorado Chiquito, Ariz.

Genus 363. MEDA Girard.

Meda Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 191 (*M. fulgida* Girard).

1104. *Meda fulgida* Girard.
Rio Gila Basin, Ariz.
Meda fulgida Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 192, Rio San Pedro, Ariz.

Genus 364. PLAGOPTERUS Cope.

Plagopterus Cope, Proc. Amer. Phil. Soc., XIV, 1874, 130 (*P. argentissimus* Cope).

1105. *Plagopterus argentissimus* Cope.
Colorado Basin in western Colorado; Fort Yuma.
Plagopterus argentissimus Cope, Proc. Amer. Phil. Soc., XIV, 1874, 130, San Luis Valley, Colo.

Order Y. NEMATOGNATHI.²⁸

Family 92. ARIIDÆ. Sea catfishes

Genus 365. BAGRE Oken. *Gafftopsail catfishes*.

Les Bagres Cuvier, Règne Anim., II, 1817 (*Silurus bagre* L.).

Bagre Oken, Isis, 1817, 1183 (after les Bagres of Cuvier; type by tautonymy *Silurus bagre* Linnæus).

Breviceps Swainson, Nat. Hist. Anim., I, 1838, 328 (*Breviceps filamentosus* Swainson); name preoccupied.

Felichthys Swainson, loc. cit., II, 1839, 305 (*Breviceps filamentosus* Swainson); substitute for *Breviceps*.

Ailurichthys Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 26 (*Silurus marinus* Mitchell).

Ælurichthys, corrected spelling.

²⁸ Until recently all members of this order have been usually included in the single family *Siluridae*. As properly restricted the *Siluridae* is a small group of large river fishes of Europe and Asia, resembling our larger catfishes, but without adipose fin, the anal joined to the caudal.

1106. **Bagre marina** (Mitchill). *Sea catfish; Gafftopsail*.
Cape Cod to Texas.
Silurus marinus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 433, New York.
In the investigation of Linnæan types at Upsala Dr. Einar Lönnberg has found an example of this species labeled *Silurus felis*. On the strength of this discovery this species has been called *Felichthys felis*. But Linnaeus's own description shows clearly that this was not his type, which must have been our common sea cat here called *Galeichthys felis*.
1107. **Bagre isthmensis** (Regan).
Atlantic coast of Panama; Colon.
Ælurichthys isthmensis Regan, Biol. Centrali-Amer., 1907, 117, Tab. XV, fig. 1, and Tab. XIX, fig. 1, Atlantic coast of Panama, Colon.
1108. **Bagre panamensis** (Gill).
Mazatlan to Panama.
Ælurichthys panamensis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 172, Panama.
1109. **Bagre pinnimaculatus** (Steindachner).
Mazatlan to Panama.
Ælurichthys pinnimaculatus Steindachner, Ichth. Beitr., IV, 1875, 15, Panama, Altata, Costa Rica.
1110. **Bagre eydouxii** (Cuvier and Valenciennes).
Guayaquil.
Galeichthys eydouxii Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 43, Guayaquil.
1111. **Bagre scutatus** (Regan).
Coast of Panama and Ecuador.
Ælurichthys scutatus Regan, Biol. Centrali-Amer., 1907, 116, Tab. XV, fig. 2, and Tab. XIX, fig. 2, Pacific coast of Panama.
1112. **Bagre bahiensis** (Castelnau).
Mexico to Bahia.
Galeichthys bahiensis Castelnau, Anim. Amér. Sud, 1855, 37, Bahia.
Ælurichthys longispinis Günther, Cat., V, 1864, 178; Mexico; South America.
- Genus 366. **SCIADEICHTHYS** Bleeker.
Sciadeichthys Bleeker, Act. Soc. Sci. Indo-Neerl., V, 1858, 99 (*Sciades pictus* Müller and Troschel); not *Sciadeichthys* Bleeker, 1863.
1113. **Sciadeichthys troscheli** (Gill).
Gulf of California to Panama.
Sciades troscheli Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 171, Panama.
Arius brandti Steindachner, Ichth. Beitr., IV, 1876, 21, Altata, Panama.
1114. **Sciadeichthys emphysetus** (Müller and Troschel).
Surinam.
Bagrus (Sciades) emphysetus Müller and Troschel, Horæ Ichth., III, 1849, 8, Surinam.
1115. **Sciadeichthys proops** (Cuvier and Valenciennes).
West Indies from Porto Rico to Surinam and south to Pernambuco.
Bagrus proops Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 457, Guiana; Porto Rico.
- Genus 367. **SELENASPIS** Bleeker.
Selenaspis Bleeker, Vissch. Ind. Archipel., I, 1858, 62 (*Silurus hertzbergi* Bloch).
Leptarius Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 170 (*L. dowii* Gill).
1116. **Selenaspis dowii** (Gill).
Panama to Guayaquil.
Leptarius dowii Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 170, Panama.
Arius alatus Steindachner, Ichth. Beitr., IV, 1876, 19, Panama.

Genus 368. NETUMA Bleeker.

Netuma Bleeker, Vissch. Ind. Archipel., I, 1858, 62 (*N. thalassina*, Bleeker = *N. nasuta* Bleeker).

Guiritinga Bleeker, loc. cit., 62 (*Arius commersonii* Bleeker).

Notarius Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 171 (*Arius grandicassis* Cuvier and Valenciennes).

1117. *Netuma planiceps* (Steindachner).

Gulf of California to Panama; not rare.

Arius planiceps Steindachner, Ichth. Beitr., IV, 1876, 26, Altata, Panama.

1118. *Netuma kessleri* (Steindachner).

Gulf of California to Panama; not rare.

Arius kessleri Steindachner, Ichth. Beitr., IV, 1876, 24, Altata, Panama.

1119. *Netuma insculpta* (Jordan and Gilbert).

Panama.

Arius insculptus Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882 (1883), 41, Panama.

1120. *Netuma platypogon* (Günther).

Gulf of California to Peru; generally common.

Arius platypogon Günther, Cat., V, 1864, 147, San Jose de Guatemala.

1121. *Netuma oscula* (Jordan and Gilbert).

Panama; a single example known.

Arius osculus Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882 (1883), 46, Panama.

1122. *Netuma elattura* (Jordan and Gilbert).

Panama; scarce.

Arius elatturus Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882 (1883), 45, Panama.

Genus 369. GALEICHTHYS Cuvier and Valenciennes. Sea catfish.

Galeichthys Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 28

(*G. feliceps* Cuvier and Valenciennes).

Hexanematichthys Bleeker, Act. Soc. Sci. Indo-Neerl., V, 1858, 2 (*Bagrus sundiacus* Bleeker).

Cephalocassis Bleeker, Vissch. Ind. Archipel., I, 1858, 62 (*Arius truncatus* Cuvier and Valenciennes).

Ariopsis Gill, Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 56 (*Arius milberti* = *Silurus belis* L.).

Hemiaris Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 7 (*Cephalocassis stormi* Bleeker).

Subgenus GALEICHTHYS²⁹ Cuvier and Valenciennes.**1123. *Galeichthys lentiginosus* (Eigenmann and Eigenmann).**

Panama.

Tachisurus lentiginosus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 139, Panama.

1124. *Galeichthys peruvianus* Lütken.

Pacific coast of Mexico to Peru.

Galeichthys peruvianus Lütken, Vid. Med. Naturh. Foren. Kjøbenhavn, 1874, 204, Callao, Peru.

Subgenus HEXANEMATICTHYS³⁰ Bleeker.**1125. *Galeichthys felis* (Linnaeus). Sea cat.**

Cape Cod to Texas.

Silurus felis Linnaeus, Syst. Nat., ed. XII, 1766, 503, Charleston, S. C. *Arius milberti* Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 74, New York; Charleston, S. C.

?*Arius equestris* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1855, 26, Indianola, Tex.

1126. *Galeichthys guentheri* Regan.

Gulf of Mexico.

Galeichthys guentheri Regan, Biol. Centrali-Amer., 1907, 124, Tab. XVI, fig. 1, and Tab. XIX, fig. 3, Gulf of Mexico.

²⁹ Top of head covered with soft skin, hiding the rugose plates.

³⁰ Top of head with thin skin which does not hide the rugose plates.

1127. *Galeichthys surinamensis* (Bleeker).
Surinam.
Hexanematischthys surinamensis Bleeker, Versl. Akad. Amsterdam, 1862, 380, Surinam.
1128. *Galeichthys seemani* (Günther).
Panama.
Arius seemani Günther, Cat., V, 1864, 147, "Central America."
1129. *Galeichthys gilberti* Jordan and Williams.
Coast of Sinaloa.
Galeichthys gilberti Jordan and Williams, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 395, pl. 26, Mazatlan, Mexico.
1130. *Galeichthys jordani* (Eigenmann and Eigenmann).
Panama.
Tachisurus jordani Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 142, Panama.
1131. *Galeichthys cærulescens* (Günther).
West coast of Guatemala.
Arius cærulescens Günther, Cat., V, 1864, 149, Rio Huamuchal, Guatemala.
1132. *Galeichthys azureus* Jordan and Williams.
Mazatlan, Mexico.
Galeichthys azureus Jordan and Williams, Proc. Calif. Acad. Sci., 2d ser., IV, 1895, 398, pl. 27, Mazatlan, Mexico.
1133. *Galeichthys xenauchen* Gilbert.
Panama.
Galeichthys xenauchen Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2777, Panama.
1134. *Galeichthys guatemalensis* (Günther).
Mazatlan to Central America.
Arius guatemalensis Günther, Cat., V, 1864, 145, Guatemala; Chiapas.
1135. *Galeichthys assimilis* (Günther).
Atlantic coast of Central America, ascending streams.
Arius assimilis Günther, Cat., V, 1864, 146, Lake Yzabel, Guatemala.
1136. *Galeichthys dasycephalus* (Günther).
Panama (wrongly ascribed to the Hawaiian Islands).
Arius dasycephalus Günther, Cat., V, 1864, 157, Oahu; apparently an error.
1137. *Galeichthys longicephalus* (Eigenmann and Eigenmann).
Panama.
Tachisurus longicephalus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 143, Panama.
- Genus 370. **ARIUS** Cuvier and Valenciennes.
? *Tachysurus* Lacépède, Hist. Nat. Poiss., V, 1803, 151 (*T. chinensis* Lacépède; from a Chinese drawing, not identifiable as to species; may be a fresh-water fish or a *Netuma*).
Arius Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 52 (*A. arius* Cuvier and Valenciennes, type by autonomy).
Ariodes Müller and Troschel, Horæ Ichth., III, 1849, 9 (*Arius arenarius* Müller and Troschel).
Pseudarius Bleeker, Nederl. Tijdschr. Dierk., I, 1862, 91 (*Arius arius* Cuvier and Valenciennes).
1138. *Arius spixii* (Agassiz).
Trinidad to Brazil.
Pimelodus albidus Spix, in Agassiz, Gen. Spec. Pisc. Brasil., 1829, 19, equatorial Brazil; name preoccupied.
Pimelodus spixii Agassiz, loc. cit., 19; after Spix.
Arius arenatus Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 106, Cayenne.
Arius laticeps Günther, Cat., V, 1864, 171, British Guiana, Trinidad.
1139. *Arius melanopus* Günther.
Pacific coast of Central America.
Arius melanopus Günther, Cat., V, 1864, 172, Rio Motagua.

1140. **Arius furthi** Steindachner.
Panama.
Arius fürthii Steindachner, Ichth. Beitr., IV, 1876, 29, Panama.
1141. **Arius steindachneri** (Gilbert and Starks).
Pacific coast of Panama.
Tachysurus steindachneri Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 29, Pl. V, fig. 9, Panama Bay.
1142. **Arius evermanni** (Gilbert and Starks).
Panama.
Tachysurus evermanni Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 32, Pl. V, fig. 10, Panama.
1143. **Arius liropus** (Bristol).
Coast of Sonora, Mexico.
Tachysurus liropus Susan Brown Bristol, in Gilbert, Proc. U. S. Nat. Mus., XIX, 1896 (Feb. 5, 1897), 438, San Juan Lagoon, near mouth of Rio Ahome, Sonora, Mexico.
1144. **Arius emmelane** (Gilbert).
Panama.
Tachysurus emmelane Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2785, Panama.
1145. **Arius taylori** Hildebrand. *Bagre*.
Coast of El Salvador.
Arius taylori Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 250, fig. 10, Rio Lempa, San Marcos.
1146. **Arius multiradiatus** Günther.
Streams of Isthmus of Panama, Rio Bayano, Panama.
Arius multiradiatus Günther, Cat., V, 1864, 173, Rio Bayano, Panama.
- Genus 371. **CATHOROPS** Jordan and Gilbert.
Cathorops Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882, 54 (*Arius hypophthalmus* Steindachner).
1147. **Cathorops hypophthalma** (Steindachner).
Panama; rather scarce.
Arius hypophthalmus Steindachner, Ichth. Beitr., IV, 1875, 31, Pl. X, Panama.
1148. **Cathorops gulosa** (Eigenmann and Eigenmann).
Panama.
Tachysurus gulosus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d. ser., I, 1888, 146, Panama.
- Family 93. **AMEIURIDÆ**. Horned pouts; Channel cats
- Genus 372. **ISTLARIUS** Jordan and Snyder.
Istlarius Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 118 (*I. balsanus* Jordan and Snyder).
1149. **Istlarius balsanus** Jordan and Snyder.
Balsas River Basin, Pacific slope of Mexico.
Istlarius balsanus Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 118; tributary of Rio de las Balsas at Puente de Ixtla, Guerrero, Mexico (Pacific drainage).
- Genus 373. **ICTALURUS** Rafinesque. Channel cats.
Ictalurus Rafinesque, Ichth. Ohiensis, 1820, 61 (*Silurus punctatus* Rafinesque).
Ellipops Rafinesque, loc. cit., 62 (*Pimelodus maculatus* Rafinesque).
Synechoglanis Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 39 (*S. beadlei* Gill = *Ictalurus furcatus* Rafinesque).
Ichthyælorus, corrected spelling.

1150. *Ictalurus furcatus* (Cuvier and Valenciennes). *Blue cat; Great fork-tailed cat; Mississippi cat; Poisson bleu.*
Pimelodus furcatus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1840, 136, New Orleans.
Pimelodus affinis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 26, Rio Grande.
Ameiurus ponderosus Bean, Proc. U. S. Nat. Mus., II, 1879, 286, St. Louis.
Ictalurus robustus Jordan, Bull. U. S. Nat. Mus., X, 1877, 76, Cairo, Ill.
1151. *Ictalurus anguilla* Evermann and Kendall. *Eel cat; Willow cat; Fulton cat.*
 Mississippi River, occasionally as far north as Louisville, Ky., Muscatine and Fairport, Iowa, where it is known as the "Fulton cat."
Ictalurus anguilla Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897 (Feb. 9, 1898), 125, pl. 6, fig. 1, Atchafalaya River, La.
1152. *Ictalurus punctatus* (Rafinesque). *Channel cat; White cat; Fiddler.*
 Rivers of the Great Lakes region, the Mississippi Valley, and streams tributary to the Gulf of Mexico.
Silurus punctatus Rafinesque, Amer. Month. Mag., 1818, 359, Ohio River.
Pimelodus caudafurcatus LeSueur, Mem. Mus., V, 1819, 152, Wabash River; Mississippi River.
Pimelodus maculatus, pallidus, argentinus, argyrus, with varieties *erythroptera, marginatus, lateralis, leucoptera* Rafinesque, Quarterly Jour. Sci., London, 1820, and Ichth. Ohiensis, 1820, 62, etc., Ohio River.
Pimelodus furcifer Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 139, Surinam, by error.
Pimelodus gracilis Hough, Ann. Rept. Regent's, Albany, 1852, 26, Somerville, N. Y.
Pimelodus vulpes Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 170, rivers of Texas.
Synechoglanis beadleii Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1859, 40, St. Catherine's, Ont.
Pimelodus houghi Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 159, Somerville; Ogdensburg; Foxburg, Pa.
Pimelodus megalops Girard, loc. cit., 161, Black Warrior River, Bigsby River, Ala.
Pimelodus graciosus Girard, loc. cit., 161, Prairie Mer Rouge, La.
Pimelodus hammondi and *notatus* Abbott, loc. cit., XII, 1860, 568, 569, Fort Riley, Kans.
Ictalurus simpsoni Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1862, 43, Platte River.
1153. *Ictalurus meridionalis* (Günther).
 Rio Usumacinta, Guatemala.
Ameiurus meridionalis Günther, Cat., V, 1864, 102, and in Trans. Zool. Soc. Lond., 1868, 473, Rio Usumacinta, Guatemala.
- Genus 374. **HAUSTOR** Jordan and Evermann.
Haustor Jordan and Evermann, Fishes North and Mid. Amer., 1896, 137 (*Gadus lacustris* Walbaum = *Pimelodus nigricans* LeSueur).
Villarius Rutter, Proc. Calif. Acad. Sci., VI, Ser. 2, June 23, 1896, 258 (*V. pricei* Rutter).
1154. **Haustor lacustris** (Walbaum).
 Saskatchewan River and the Great Lakes.
Gadus lacustris Walbaum, Artdi Pisc., 1792, 144, Arctic America; based on the mathemeg or land cod of Pennant.
Pimelodus nigricans LeSueur, Mem. Mus., V, 1819, 153, Lake Erie, Lake Ontario.
Pimelodus borealis Richardson, Fauna Bor.-Amer., III, 1836, 135, Pine Island Lake.
1155. **Haustor okeechobeensis** (Heilprin).
 Florida.
Ictalurus okeechobeensis Heilprin, Trans. Wagner Inst. Sci. Phila., I, 1887, pl. 18, Kissimee River, Fla.
Ameiurus lacustris okeechobeensis Fowler, Proc. Acad. Nat. Sci. Phila., LI, 1899, 480; same type.

- 1156. *Haustor catus* (Linnæus).** *White cat; Channel cat of the Potomac.*
Silurus catus Linnæus, Syst. Nat., ed. X, 1758, 305; based on the catfish of Catesby (*Bagre secundæ speciei marcgrævi affinis*), which is a rude figure of the adult or "lophius" form of this species; northern part of America.
Pimelodus albidus LeSueur, Mem. Mus., V, 1819, 148, Delaware River.
Pimelodus lynx Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 160, Potomac River.
Amiurus niveiventris Cope, Proc. Amer. Phil. Soc., XI, 1870, 486, Neuse River.
Ictalurus macaskeyi and *I. keviniskii* Stauffer, Hist. Lancaster County, Pa., 1869, 578, Lancaster County, Pa.
- 1157. *Haustor lophius* (Cope).** *Big-mouthed cat.*
 Potomac River.
Amiurus lophius Cope, Proc. Amer. Phil. Soc., XI, 1870, 486, Potomac River; not observed elsewhere. Known by its very wide flat head; apparently not the adult of *Ameiurus catus*, as has been supposed.
- 1158. *Haustor lupus* (Girard).**
 Rio Neuces and Rio Pecos, Tex.
Pimelodus lupus Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 211, Rio Pecos, Tex.
- 1159. *Haustor pricei* (Rutter).**
 Southern Arizona.
Villarius pricei Rutter, Proc., Calif. Acad. Sci., 2d ser., VI, 1896, 257, San Bernardino Creek, a tributary of the Yaqui River, southern Arizona.
- 1160. *Haustor dugesi* (Bean).**
 Rio Turbio, Guanajuato, Mexico, west of the Sierra Madre.
Ameiurus dugesi Bean, Proc. U. S. Nat. Mus., II, 1879, 304, Rio Turbio, Guanajuato, Mexico.
- Genus 375. AMEIURUS Rafinesque.** *Horned pout.*
Ameiurus Rafinesque, Ichth. Ohiensis, 1820, 65 (*Silurus cupreus* Rafinesque = *Pimelodus natalis* LeSueur).
Amiurus, corrected spelling.
- 1161. *Ameiurus erebennus* Jordan.**
 Coast swamps and black water streams from New Jersey to Florida.
Ameiurus erebennus Jordan, Bull. U. S. Nat. Mus., X, 1877, 85, St. John's River, Fla.
- 1162. *Ameiurus natalis* (LeSueur).** *Yellow cat.*
 Great Lakes region to Virginia and southward.
Pimelodus natalis LeSueur, Mem. Mus., 1819, 154, North America.
Silurus lividus and var. *fuscus* Rafinesque, Quarterly Jour. Sci. Lond., 1820, 48, Ohio River.
Silurus cupreus Rafinesque, loc. cit., 1820, 51, Ohio River.
Pimelodus cupreus Rafinesque, Ichth. Ohiensis, 1820, 65, Ohio River.
Pimelodus canosus Richardson, Fauna Bor.-Amer., III, 1836, 132, Lake Huron.
Pimelodus felinus et *antoniensis* Girard, Pac. R. R. Surv., X, 1858, 209, Canadian and San Antonio Rivers, Tex.
Pimelodus cupresoides Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 159, Aux Plaines, Ill.
Ameiurus natalis analis Jordan, Bull. U. S. Nat. Mus., X, 1877, 81, Arkansas River.
Ameiurus bolli Cope, Bull. U. S. Nat. Mus., XX, 1880, 35, Little Wichita River, Tex.
- 1163. *Ameiurus vulgaris* (Thompson).**
 Vermont to Minnesota and Illinois, chiefly northward. A doubtful species.
Pimelodus vulgaris Thompson, Hist. Vermont, 1842, 138, Lake Champlain.
P[imelodus] dehayi Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 160, Oswego, N. Y.
Pimelodus ailurus Girard, Pac. R. R. Surv., X, 1858, 210, Lake Amelia, Minn.

1164. **Ameiurus nebulosus** (LeSueur). *Horned pout; Common bullhead; Small catfish; Schuylkill cat; Sacramento cat.*
Great Lakes, Ohio Valley, eastward to Maine, southwestward to Texas and southwestward to Florida; introduced about 1877 into the Humboldt, Sacramento, San Joaquin, and Gila Rivers, where it is now excessively abundant.
Pimelodus nebulosus LeSueur, Mem. Mus., V, 1819, 149, Lake Ontario.
Pimelodus atrarius DeKay, N. Y. Fauna: Fishes, 1842, 185, Wappingers Creek, Dutchess County, N. Y.
Pimelodus felis Agassiz, Lake Superior, 1850, 281, Lake Superior.
Pimelodus vulpeculus Girard, Proc., Acad. Nat. Sci. Phila., XI, 1859, 160, Charleston, S. C.
Pimelodus hoyi Girard, loc. cit., 159, Racine, Wis.
Ameiurus mississippiensis Cope, Proc., Amer. Phil. Soc., 1870, 486, Mississippi Creek, Del.
1165. **Ameiurus nebulosus catulus** (Girard).
Streams of Texas; abundant.
Pimelodus catulus Girard, Pac. R. R. Surv., X, 1858, Pt. 4, Fishes, 208, Fort Smith, Ark.
1166. **Ameiurus prosthistius** Cope.
New Jersey.
Ameiurus prosthistius Cope, Proc. Acad. Nat. Sci. Phila., XXXV, 1883, 133, Batsto River, N. J.
1167. **Ameiurus platycephalus** (Girard). *Mud cat; Brown cat.*
Streams of the Carolinas and eastern Georgia, Cape Fear to the Chatahoochee.
Pimelodus platycephalus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 161, Anderson, S. C.
Ameiurus brunneus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1877, 366, Ocmulgee River, Flat Shoals, Ga.; the young of *platycephalus*.
1168. **Ameiurus brachyacanthus** Cope.
Streams of Texas.
Ameiurus brachyacanthus Cope, Bull. U. S. Nat. Mus., XVII, 1880, 35, Wallace Creek, Bandera County, Tex.
1169. **Ameiurus melas** (Rafinesque). *Black bullhead; Small catfish.*
Northern New York (Genesee River) to Kansas and Texas; common especially west of the Mississippi.
Silurus melas Rafinesque, Quarterly Jour. Sci. Lond., 1820, 51, Ohio River.
Silurus xanthocephalus Rafinesque, loc. cit., 1820, 51, Ohio River.
Pimelodus pullus DeKay, N. Y. Fauna: Fishes, 1842, 184, Lake Pleasant, Janet, N. Y.
Pimelodus confinis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 159, Racine, Wis.
Ameiurus obesus Gill, Proc. Bost. Soc. Nat. Hist., 1862, 45, Nebraska.
Ameiurus cragini Gilbert, Bull., Washburn Lab. Nat. Hist., I, 1884, 10, Garden City, Kans.
1170. **Ameiurus marmoratus** (Holbrook).
Lowland streams and swamps from southwestern Indiana (Switz City) southward and eastward to Florida.
Pimelodus marmoratus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 54, South Carolina.
- Genus 376. GRONIAS** Cope. *Blind catfishes.*
Gronias Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 231 (*G. nigrilabris* Cope).
1171. **Gronias nigrilabris** Cope.
Cave streams tributary to Conestoga River in eastern Pennsylvania.
Gronias nigrilabris Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 231, Conestoga River, Pa.

Genus 377. OPLADELUS Rafinesque.

?*Pilodictis* Rafinesque, Jour. Phys., 1819, 422 (*P. limosa* Rafinesque, after Audubon; drawing of an imaginary catfish).

Leptops Rafinesque, Ichth. Ohiensis, 1820, 64 (*Pimelodus viscosus* Rafinesque = *Silurus olivaris* Rafinesque).

Opladelus Rafinesque, loc. cit., 64 (*Pimelodus nebulosus* Rafinesque = *Silurus olivaris* Rafinesque); name chosen by first reviser.

Ilicis Rafinesque, loc. cit., 66 (*Pimelodus nebulosus* Rafinesque = *Silurus olivaris* Rafinesque).

Hopladelus and *Pelodichthys*, corrected spelling.

1172. *Opladelus olivaris* (Rafinesque). *Mud cat; Yellow cat; Bashaw; Russian cat; "Hoosier" at New Boston, Ill.; Goujon.*

Silurus olivaris Rafinesque, Amer. Month. Mag., 1818, 355, Ohio River.

Silurus nebulosus, viscosus and *limosus* Rafinesque, Quarterly Jour. Sci. Lond., 1820, 50, Ohio River.

Pyloodictis limosus Rafinesque, Ichth. Ohiensis, 1820, 67, Ohio and Mississippi Rivers; based on a drawing by Audubon.

Pimelodus punctulatus Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 134, New Harmony, Ind.

Pimelodus æneus Cuvier and Valenciennes, loc. cit., 135, New Orleans.

Genus 378. NOTURUS Rafinesque. *Stone cats.*

Noturus Rafinesque, Amer. Month. Mag., November, 1818, 41 (*N. flavus* Rafinesque).

1173. *Noturus flavus* Rafinesque. *Stone cat.*

Great Lakes region, westward to Montana and Wyoming and south to Texas.

Noturus flavus Rafinesque, Amer. Month. Mag., 1818, 41, falls of Ohio River.

Noturus luteus Rafinesque, Jour. Phys., 1819, 421, Ohio River.

Noturus occidentalis Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1862, 45, Platte River.

Noturus platycephalus Günther, Cat., V, 1864, 104, North America.

Genus 379. SCHILBEODES Bleeker. *Tadpole cats.*

Schilbeodes Bleeker, Ichth. Archip. Indici. Prodr. Siluri, 1858, 258 (*Silurus gyrinus* Mitchill).

1174. *Schilbeodes gyrinus* (Mitchill).

Hudson River and westward through almost the entire Mississippi Valley, and Great Lakes region.

Silurus gyrinus Mitchill, Amer. Month. Mag., 1818, 322, Walkill River, N. Y.

Noturus sialis Jordan, Bull. U. S. Nat. Mus., X, 1877, 102, White River, Ind.

Genus 380. TROGLOGLANIS Eigenmann.

Trogloglanis Eigenmann, Proc. Amer. Phil. Soc., LVIII, 1919, 397 (*T. pattersoni* Eigenmann).

1175. *Trogloglanis pattersoni* Eigenmann.

Artesian well in San Antonio, Tex.

Trogloglanis pattersoni Eigenmann, Proc. Amer. Phil. Soc., LVIII, 1919, 397, figs. 1 and 2.

Genus 381. RABIDA Jordan and Evermann. *Mad toms.*

Rabida Jordan and Evermann, Fishes North and Mid. Amer., 1896, 146 (*Noturus furiosus* Jordan and Meek).

Pimelodon (LeSueur) Vaillant, Bull. Soc. Philom., 1896, 28 (*Pimelodon insignarius* LeSueur, unpublished plate of 1819; probably *Pimelodus insigne* Richardson, the *lemniscatus* = *Pimelode insigne* of LeSueur).

Subgenus PIMELODON.**1176. *Rabida leptacantha* (Jordan).**

Gulf States, in sandy streams; basins of Ogeechee, Alabama, and Pearl Rivers.

Noturus leptacanthus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 352, Silver Creek, branch of Etowah River, Rome, Ga.

1177. *Rabida nocturna* (Jordan and Gilbert).
Sandy streams, among weeds, in lower Mississippi Valley; known from the lower Wabash in Indiana and from the Poteau, Washita, and Saline Rivers, Ark.
Noturus nocturnus Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 6, Saline River at Benton, Ark.
1178. *Rabida funebris* (Jordan and Swain).
Tributary of Black Warrior River, Tuscaloosa, Ala.
Noturus funebris Jordan and Swain, Bull. U. S. Fish Com., IX, 1889, 153, North River, Tuscaloosa, Ala.
1179. *Rabida exilis* (Nelson).
Wisconsin to Missouri and Kansas; common in prairie streams.
Noturus exilis Nelson, Bull. Ill. Lab. Nat. Hist., 1876, 51, Illinois River.
Noturus classochir Swain and Kalb, Proc. U. S. Nat. Mus., V, 1882, 639, Naperville, Ill.
1180. *Rabida insignis* (Richardson). *Mad tom*.
Pennsylvania to South Carolina; very common in streams east of the Alleghenies.
Pimelodus insignis Richardson, Fauna Bor.-Amer., III, 1836, 32, based on *Pimelode livree* LeSueur, Mem. Mus., V, 1819, 155, locality not known.
Noturus marginatus Baird, in Cope, Jour. Acad. Nat. Sci. Phila., VI, 1869, 237, Pa.
Pimelodon insignarius LeSueur, in Vaillant, Bull. Soc. Philom., 1896, 28.
1181. *Rabida gilberti* (Jordan and Evermann).
Roanoke River in southern Virginia, locally abundant.
Noturus gilberti Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 352, Roanoke River, Roanoke, Va.
1182. *Rabida miura* (Jordan).
Mississippi Valley and tributaries of Lake Michigan, south to Louisiana; common in the Ohio Valley.
Noturus miurus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1877, 371, White River, Ind.
1183. *Rabida eleuthera* (Jordan).
Mississippi Valley, rare, but widely distributed; tributaries of French Broad River (Big Pigeon River, Clifton, Tenn., French Broad at Hot Springs, N. C.); White River, Gosport, Ind.; Green River, Greensburg, Ky.; Schriener Lake, Columbia City, Ind.; White River, Fayetteville, Ark.; Sallisaw River, Indian Territory [Okla.]. Only a few specimens known.
Noturus eleutherus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1877, 371, Big Pigeon River, Clifton, Tenn.
1184. *Rabida furiosa* (Jordan and Meek).
Eastern North Carolina; known from the Neuse, Tar, and Little Rivers.
Noturus furiosus Jordan and Meek, Proc. U. S. Nat. Mus., XI, 1888, 351, Neuse River, N. C.

Family 94. PIMELODIDÆ. South American catfishes; *Bagres de Rio*

Genus 382. CONORHYNCHOS Bleeker.

Conorhynchus Bleeker, Vissch. Ind. Archipel. Siluri, 1858, 191 (*Pimelodus conirostris* Cuvier and Valenciennes); not *Conorhynchus* Nozeman, a pre-Linnean name (1757) revived by Gill (1861).

Conorhynchichthys Regan, *Conorhynchus* being regarded as preoccupied.

1185. *Conorhynchus nelsoni* Evermann and Goldsborough.

Rio Usumacinta, Yucatan.

Conorhynchus nelsoni Evermann and Goldsborough, Bull. U. S. Fish Com., XXI, 1901 (1902), 140, fig. 1, Rio Usumacinta at Monte Cristo, Yucatan.

Genus 383. RHAMDIA Bleeker. *Bagrés de Rio*.

Pteronotus Swainson, Nat. Hist. Fishes, Amphib., etc., II, 1839, 309 (*Heterobranchus sextentaculatus* Agassiz, preoccupied in mollusks).

Rhamdia Bleeker, Vissch. Ind. Archipel.: Siluri, 1858, 197 (*Pimelodus quelon* Quoy and Gaimard).

Rhamdella Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 172 (*R. eriarcha* Eigenmann and Eigenmann).

1186. *Rhamdia wagneri* (Günther). *Barbudo*.
Rivers of Central America, on both sides of the mountains; very abundant.
Pimelodus wagneri Günther, Fish. Cent. Amer., 1869, 474, Atlantic and Pacific rivers of Panama.
Rhamdia bransfordi Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876, 337, Panama.
1187. *Rhamdia oaxacæ* Meek. *Bagre*.
Streams of Mexico on the Atlantic side south of Vera Cruz.
Rhamdia oaxacæ Meek, Field Col. Mus., Zool., III, 74 (figured in plate V, loc. cit., V, 1905) Rio Quiotepec, Cuicatlan, Mexico.
1188. *Rhamdia baronis-mülleri* (Troschel).
"Pacific Ocean" in Mexico.
Pimelodus baronis-mülleri Troschel, in Müller's Beitr. Gesch. Statis. und Zool. Mexico, III, 1865, 636, no definite locality.
1189. *Rhamdia motaguensis* (Günther).
Rio Motagua, Guatemala.
Pimelodus motaguensis Günther, Cat., V, 1864, 127, Rio Motagua, Guatemala.
1190. *Rhamdia guatemalensis* (Günther).
Huamuchal, Guatemala.
Pimelodus guatemalensis Günther, Cat., V, 1864, 122, Rio Huamuchal, Guatemala.
Pimelodus brachypterus Cope, Trans. Amer. Phil. Soc., XIII, 1866, 404, Orizaba, Mexico.
1191. *Rhamdia salvini* (Günther).
Rio San Geronimo, Guatemala.
Pimelodus salvini Günther, Cat., V, 1864, 130, Rio San Geronimo, Guatemala.
1192. *Rhamdia hypselura* (Günther).
Mexico.
Pimelodus hypselurus Günther, Cat., V, 1864, 126, Mexico.
1193. *Rhamdia brachycephala* (Regan).
Mexico.
Pimelodus brachycephalus Regan, Ann. Mag. Nat. Hist., XIX, 1907, 258, Guatemala, Rio Nacasil.
1194. *Rhamdia laticauda* (Heckel).
Mexico.
Pimelodus laticaudus Heckel, in Kner, Sitzungsber. Kais. Akad. Wiss. Wien, XXVI, 1857, 420, Mexico.
1195. *Rhamdia godmani* (Günther).
Valley of Rio Usumacinta, Guatemala.
Pimelodus godmani Günther, Cat., V, 1864, 124, Rio Usumacinta, Guatemala.
1196. *Rhamdia nicaraguensis* (Günther).
Lake Nicaragua.
Pimelodus nicaraguensis Günther, Cat., V, 1864, 125, Lake Nicaragua, Nicaragua.
1197. *Rhamdia microptera* (Günther).
Rio San Geronimo, Guatemala.
Pimelodus micropterus Günther, Cat., V, 1864, 124, Rio San Geronimo, Guatemala.
1198. *Rhamdia managuensis* (Günther).
Lake Managua, Nicaragua.
Pimelodus managuensis Günther, Fish. Cent. Amer., 1869, 474, Lake Managua, Nicaragua.
1199. *Rhamdia cabreræ* Meek.
Lake Amatitlan, Guatemala.
Rhamdia cabreræ Meek, Field Mus. Nat. Hist., Zool., VII, 1906, 93, Lake Amatitlan, Nicaragua.

1200. *Rhamdia barbata* Meek. *Chuchin*.
Lakes of Nicaragua.
Rhamdia barbata Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 106,
San Francisco, Nicaragua.
1201. *Rhamdia sacrificii* Barbour and Cole.
Chichen-Itza, Yucatan.
Rhamdia sacrificii Barbour and Cole, Bull. Mus. Comp. Zool., L, 1906,
No. 5, 156, Sacrificial Cenote, near Chichen-Itza, Yucatan.
1202. *Rhamdia depressa* Barbour and Cole.
Near Chichen-Itza, Yucatan.
Rhamdia depressa Barbour and Cole, Bull. Mus. Comp. Zool., L, 1906,
No. 5, 155, pl. 1, Ikil Cenote, near Chichen-Itza, Yucatan.
1203. *Rhamdia heteracantha* Regan.
Costa Rica.
Rhamdia heteracantha Regan, Biol. Centrali-Amer., Pisces, 1907, 134,
Juan Viñas, Costa Rica.
1204. *Rhamdia polycaula* (Günther).
Rio San Geronimo.
Pimelodus polycaulus Günther, Cat., V, 1864, 131, Rio San Geronimo.
1205. *Rhamdia petenensis* (Günther).
Lake Peten, Yucatan.
Pimelodus petenensis Günther, Cat., V, 1864, 126, Lake Peten, Yucatan.
1206. *Rhamdia parryi* Eigenmann.
Rio Zanalenco, Chiapas.
Rhamdia parryi Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888,
130, Rio Zanalenco, Chiapas.
1207. *Rhamdia underwoodi* Regan.
Costa Rica.
Rhamdia underwoodi Regan, Biol. Centrali-Amer., Pisces, 1907, 135,
pl. 23, fig. 4, Juan Viñas, Costa Rica.
1208. *Rhamdia rogersi* (Regan).
Pimelodus rogersi Regan, Ann. Mag. Nat. Hist., XIX, 1907, 259,
Irazu, Costa Rica.
Rhamdia regani Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 144,
Rio Tiribí, San José.
- Genus 384. *CÆCORHAMDIA* Norman.
Cæcorhamdia J. R. Norman, Ann. Mag. Nat. Hist., ser. 9, XVIII, 1926,
324 (*C. urichi* Norman).
1209. *Cæcorhamdia urichi* Norman.
Guacharo Cave, Trinidad.
Cæcorhamdia urichi J. R. Norman, Ann. Mag. Nat. Hist., ser. 9,
XVIII, 1926, 324, Guacharo Cave, Trinidad.
- Genus 385. *PIMELODELLA* Eigenmann and Eigenmann.
Pimelodella Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d.
ser., I, 1888, 131 (*Pimelodus cristatus* Müller and Troschel).
1210. *Pimelodella chagresi* (Steindachner).
Rio Chagres.
Pimelodus chagresi Steindachner, Ichth. Beitr., IV, 1876, 34, Rio
Chagres at Obispo, Canal Zone.
- Genus 386. *PIMELODUS* Lacépède
Pimelodus Lacépède, Hist. Nat. Poiss., V, 1803, 94 (*P. maculatus*
Lacépède, as restricted by authors = *Silurus clarias* Bloch).
Pseudariodes Bleeker, Nederl. Tijdschr. Dierk., 1863, 99 (*Silurus clarias*
Bloch).
Pseudorhamdia Bleeker, Versl. Akad. Amsterdam, XIV, 1862, 384
(*Pimelodus ascita* Bleeker).

1211. *Pimelodus clarias* (Bloch).

Rio Mamoni (Panama) and southeastward to Rio de la Plata.

Silurus clarias Linnaeus, Syst. Nat., ed. X, 1758, 306, in part, not the type.

Pimelodus maculatus Lacépède, Hist. Nat. Poiss., V, 1803, 94, 107, Rio de la Plata.

Piramutana blochii Günther, Cat., V, 1864, III, Cayenne; Surinam.

Pimelodus rigidus Spix, in Agassiz, Pisc. Brasil., 1829, 19, Brazil.

Pimelodus macronema Bleeker, Silures de Suriname, 1864, 79, pl. 14, Surinam.

Pseudaroides pantherinus Lütken, Meddel. Nat. Hist. Forem., 1874, Nos. 1, 2, p. 194, Venezuela.

Pseudorhamdia piscatrix Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 569, Pebas.

Piramutana macrospila Günther, Ann. and Mag. Nat. Hist., 5th ser., VI, July, 1880, 10, Pl. II, Pirana, Rio de la Plata.

Megalonema punctatum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 77, Rio Tuyra, Marrigante, Panama.

Megalonema robustum Meek and Hildebrand, loc. cit., 78, Rio Tuyra, Marrigante, Panama.

Genus 387. TRACHCORYSTES Bleeker.

Trachcorystes Bleeker, Vissch. Ind. Archipel. Siluri, 1858, 20 (*T. typus* Bleeker).

Parauchenipterus Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 7 (*Silurus galeatus* L.).

1212. *Trachcorystes amblops* (Meek and Hildebrand).

Rio Tuyra Basin, Panama.

Felichthys amblops Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 77, Rio Tuyra, Marrigante, Panama.

Genus 388. AGENEIOSUS Lacépède.

Ageneiosus Lacépède, Hist. Nat. Poiss., V, 1803, 132 (*A. armatus* Lacépède=*Silurus militaris* Linnæus).

Pseudogeneiosus Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 14 (*Ageneiosus brevifilis* Cuvier and Valenciennes).

1213. *Ageneiosus caucanus* Steindachner.

Lower Rio Tuyra, Marrigante, Panama.

Ageneiosus caucanus Steindachner, Denkschr. Kais. Akad. Wiss. Wien, XLI, 1880, 61, Pl. VI, figs. 1, 2, Rio Cauca, Panama.

Family 95. PYGIDIIDÆ**Genus 389. PYGIDIUM Meyen.**

Pygidium Meyen, Reise in Peru, I, 1835, 475 (*P. fuscum* Meyen).

1214. *Pygidium striatum* Meek and Hildebrand.

Upper Tuyra Basin, Panama.

Pygidium striatum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 78, Rio Cana, Cana, Panama.

Family 96. ASTROBLEPIDÆ**Genus 390. ASTROBLEPUS³¹ Humboldt. Cave catfishes.**

Astroblepus Humboldt, Obs. Zool. Phil. Mag., XXIV, 1806, 19, 331 (*A. grizalvii* Humboldt).

Cyclopium Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 305 (*Pimelodus cyclopium* Humboldt=*Cyclopium humboldti* Swainson).

Arges Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840, 333 (*A. sabalo* Cuvier and Valenciennes).

Brontes Cuvier and Valenciennes, loc. cit., 341 (*B. prenadilla* Cuvier and Valenciennes, preoccupied).

Strephon Gistel, Thierreich., VIII, 1848 (*Brontes prenadilla* Cuvier and Valenciennes, preoccupied).

Stygogenes Günther, Cat., V, 1864, 223 (*S. humboldti* Günther).

³¹ According to Eigenmann, all these names belong to the same genus

1215. *Astroblepus pirrensis* (Meek and Hildebrand).

Tuyra River Basin.

Cyclopium pirrense Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 83, Rio Cana, Cana, Panama (Pl. XVI, Field Mus. Nat. Hist., Zool., X).

Family 97. CALLICHTHYIDÆ

Genus 391. HOPILOSTERNUM Gill.

Hoplosternum Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 395 (*Callichthys lævigatus* Cuvier and Valenciennes = *Callichthys littoratus* Hancock).1216. *Hoplosternum punctatus* Meek and Hildebrand.

Rio Marte Arnade, Panama.

? *Callichthys* (*Hoplosternum*) *thoracatus* (not Cuvier and Valenciennes), Steindachner, Sitzungsber., Kais. Akad. Wiss. Wien, XLI, 1880, 66, Cauca, near Caceres.*Hoplosternum punctatum* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 264, Rio Marte Arnade, 6 miles east of Panama City.

Family 98. LORICARIIDÆ. Mailed catfishes

Genus 392. HYPOSTOMUS (Lacépède).

Plecostomus Gronow, Zoophyl., 1763, 127 (*Plecostomus dorso dipterygio* Gronow); not binomial.*Hypostomus* Lacépède, Hist. Nat. Poiss., V, 1803, 144 (*Hypostomus guacari* Lacépède).1217. *Hypostomus plecostomus* (Linnæus).

Both slopes of Panama, south to Uruguay.

Loricaria plecostomus Linnæus, Syst. Nat., ed. XII, I, 1766, 508, America.*Hypostomus guacari* Lacépède, Hist. Nat. Poiss., V, 1803, 145, America.*Loricaria flava* Shaw, Gen. Zool., V, 1805, 38, pl. 101.*Hypostomus robinii* Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 46, Trinidad.*Hypostomus brasiliensis* Bleeker, Silures de Suriname, 1864, 7, Surinam.*Plecostomus seminudus* Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, 169, Brazil.*Plecostomus boulengeri* Eigenmann and Kennedy, Proc. Acad. Nat. Sci. Phila., LV, 1903, 502, Paraguay.

Genus 393. THYSANOCARA Regan.

Thysanocara Regan, Ann. Mag. Nat. Hist., ser. 7, XVII, 1906, 95 (*Hypostomus cirrhosus* Cuvier and Valenciennes).1218. *Thysanocara spinosa* (Meek and Hildebrand).

Rare, male taken at mouth of Rio Yape, the female (type) in Rio Calobre, Panama.

Ancistrus spinosus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 252, Rio Calobre, tributary of the Rio Bayano, Panama.

Genus 394. XENOCARA Regan.

Xenocara Regan, Trans. Zool. Soc. Lond., XVII, 1903, 251 (*Chatostomus latifrons* Günther).1219. *Xenocara chagresi* (Eigenmann and Eigenmann).

Rio Chagres, Panama.

Ancistrus chagresi Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, 47, Rio Chagres, Panama.

Genus 395. CHÆTOSTOMA Heckel.

Chatostoma Heckel, in Tschudi, Fauna Peruana, 1846, 25 (*C. lobarhynchus* Heckel).*Chatostomus* Kner and authors generally; needlessly altered spelling.

- 1220. *Chaetostoma fischeri* (Steindachner). Couchu.**
 Rio Mamoni, near Panama.
Chaetostomus fischeri Steindachner, Flussfische Südamerikas, I, 1879, 14,
 Rio Mamoni, Panama.
- Genus 396. LASIANCISTRUS Regan.**
Lasiancistrus Regan, Trans. Zool. Soc. Lond., XVII, Pt. III, 1904, 224
 and 237 (*Chaetostomus heteracanthus* Günther).
- 1221. *Lasiancistrus planiceps* (Meek and Hildebrand).**
 Rio Tuyra Basin, Panama.
Ancistrus planiceps Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
 X, 1913, 79, Pl. X; loc. cit., 1916, Rio Tuyra, Boca de Cupe, Panama.
- Genus 397. LEPTOANCISTRUS Meek and Hildebrand.**
Leptoancistrus Meek and Hildebrand, Field. Mus. Nat. Hist., Zool.,
 X, 1916, 254 (*Ancanthias canescens* Meek and Hildebrand).
- 1222. *Leptoancistrus canensis* (Meek and Hildebrand).**
 Mountain streams near Cana, Panama.
Acanthicus canensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
 X, 1913, 80, Rio Cana, Cana, Panama.
- Genus 398. STURISOMA Swainson.**
Sturisoma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 304
 (*Loricaria rostrata* Spix).
Hemiodon Kner, Panzerwelse, Denkschr., Kais. Akad. Wiss. Wien, 1854,
 65 (*H. depressus* Kner).
- 1223. *Sturisoma rostrata* (Spix).**
 Rivers of eastern South America, from Panama to the Paraguay;
 widely distributed and abundant.
Loricaria rostrata Spix, Pisc. Brasil., 1829, 5, Pl. III, Rio Blanco, Brazil.
Loricaria acuta Cuvier and Valenciennes, Hist. Nat. Poiss., XV, 1840,
 349 (472), pl. 452, Barra di Rio Negro.
 ?*Loricaria barbata* Kner, Panzerwelse, Denkschr. Kais. Akad. Wiss.
 Wien, 1853, 87, Rio Cujuba.
- Genus 399. ANCISTRUS Bleeker.**
Ancistrus Kner, Denkschr., Kais. Akad. Wiss. Wien, VII, 1854, 272
 (abstract issued in 1853; *Ancistrus medians* Kner, as first restricted
 by Gill).
Hemiancistrus Bleeker, Nederl. Tijdschr. Dierk., I, 1862 (1863), 78
 (*Ancistrus mediana* Kner).
- 1224. *Ancistrus guacharote* (Cuvier and Valenciennes).**
 Porto Rico.
Hypostomus guacharote Cuvier and Valenciennes, Hist. Nat. Poiss., XV,
 1840, 375 (508), Porto Rico.
- 1225. *Ancistrus aspidolepis* (Günther).**
 Veragua, Central America.
Chaetostomus aspidolepis Günther, Trans. Zool. Soc. Lond., VI, 1868
 (Nov. 27), 477, Veragua.
- Genus 400. LORICARIA Linnæus.**
Loricaria Linnæus, Syst. Nat., ed. X, 1753, 307(*L. cataphracta* Linnæus).
Hemiodon Kner, Denkschr. Akad. Wiss. Wien, 1854, about 65 (*H. de-*
pressus Kner).
Loricariichthys Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 3 (*Loricaria*
maculata Bloch)
Pseudoloricaria Bleeker, loc. cit., 3 (*Loricaria læviuscula* Cuvier and
 Valenciennes).
Parahemiodon Bleeker, loc. cit., 3 (*P. typus* Bleeker).
Hemioloricaria Bleeker, loc. cit., 3 (*H. caracasenses* Bleeker).
Pseudohemiodon Bleeker, loc. cit., 3 (*Hemiodon platycephalus* Kner).
- 1226. *Loricaria variegata* Steindachner.**
 Rio Mamoni, Panama.
Loricaria variegata Steindachner, Flussfische Südamerikas, I, 1879, 15,
 Rio Mamoni, Panama.

1227. *Loricaria uracantha* Kner and Steindachner.
Rio Chagres, Panama.
Loricaria uracantha Kner and Steindachner, Abhandl., Bayer. Acad. Wiss., 1865, 56, Rio Chagres, Panama.
Loricaria transfordi Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876, 338, Empire Station, Isthmus Railway, Panama.
1228. *Loricaria latiura* Eigenmann and Vance.
Rio Tuyra and Rio Atrato Basins, Panama; probably not in Pacific streams.
Loricaria filamentosa latiura Eigenmann and Vance, Ind. Univ. Stud., No. 16, 1912, 13, Boca de Certegai, Panama.
Loricaria tuyrensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 81, Rio Capeti, Panama.
1229. *Loricaria capetensis* Meek and Hildebrand.
Rio Tuyra Basin, Panama.
Loricaria capetensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 80, Pl. XII; loc. cit., 1916; Rio Capeti, tributary Rio Tuyra, Panama.
1230. *Loricaria fimbriata* Eigenmann and Vance.
Rio Tuyra Basin, Panama.
Loricaria fimbriata Eigenmann and Vance, Ind. Univ. Stud., No. 16, 1912, 12; Boca de Certegai and Bernal Creek, Colombia.
1231. *Loricaria altipinnis* Breder.
Tuyra Basin, Pacific slope of Panama.
Loricaria altipinnis C. M. Breder, jr., Amer. Mus. Novitates, CLXXX, 1925, 1, fig. 1, 2, Rio Chucunaque, Panama.
- Genus 401. **RINELORICARIA** Bleeker.
Rineloricaria Bleeker, Nederl. Tijdschr. Dierk., I, 1862 (1863), 80 (*Loricaria lima* Kner).
1232. *Rineloricaria lima* (Kner).
Coastwise streams of Brazil, from the Parahyba northward to Panama; widely distributed and abundant in rocky brooks.
Loricaria lima Kner, Panzerwelse, Denkschr. Kais. Akad. Wiss. Wien, 1853, 89, Brazil.
? *Loricaria strigilata* Hensel, Wiegmann's Archiv, 1868, 368, Santa Cruz.
- Genus 402. **OXYLORICARIA** Bleeker.
Oxyloricaria Bleeker, Nederl. Tijdschr. Dierk., I, 1863, 5 (*Loricaria barbata* Kner).
1233. *Oxyloricaria panamensis* (Eigenmann and Eigenmann).
Pacific slope of Panama and Colombia, south to Ecuador.
Loricaria rostrata (non Spix) Steindachner, Denkschr. Kais. Akad. Wiss. Wien, XLI, 1879, 165, Rio Mamoni, Panama.
Loricaria panamensis Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., ser. 2, II, 1889, 34, Panama.
Loricaria aurea Steindachner, Anz. Kais. Akad. Wiss. Wien, 1900, 206, Rio Magdalena.
Loricaria frenata Boulenger, Ann. Mag. Nat. Hist., ser. 7, IX, 1902, 69, northwestern Ecuador. *L. aurea* and *L. frenata* are extralimital and may not belong here.
Oxyloricaria dariensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 81, Rio Tuyra and Rio Bayano Basins, Panama.
1234. *Oxyloricaria citurensis* Meek and Hildebrand.
Rio Bayano and Rio Tuyra Basins, Panama.
Oxyloricaria citurensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 82, Pl. XII, loc. cit., 1916, Rio Cituro, Panama.

Order Z. INIOMI

Family 99. SYNODONTIDÆ. Lizardfishes

Genus 403. TRACHINOCEPHALUS Gill.

Trachinocephalus Gill, Cat. Fish. East Coast N. Amer., Suppl., Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53 (*Saurus myops* Cuvier and Valenciennes).

1235. *Trachinocephalus myops* (Forster). *Ground spearing; Lagarto; Snakefish.*

Tropical parts of the western Atlantic; West Indies and Brazil to coast of South Carolina; occasionally northward to Woods Hole.

Salmo myops Forster, in Bloch and Schneider, Syst. Ichth., 1801, 421, St. Helena.

Osmerus lemniscatus Lacépède, Hist. Nat. Poiss., V, 1803, 236, Martinique; after Plumier.

Saurus truncatus Agassiz, Pisc. Brasil., 1828, 82, Brazil.

Saurus brevirostris Poey, Memorias, II, 1861, 305, Cuba; erroneously stated to have 10 rays.

Genus 404. SYNODUS Gronow. *Lizardfishes.*

Synodus Gronow, in Scopoli, Int. Hist. Nat., 1777, 449 (*S. synodus* L.).

Tirus Rafinesque, Caratteri, 1810, 56 (*T. marmoratus* Rafinesque = *Esox synodus* Linnæus).

Saurus Cuvier, Règne Anim., ed. 1, 1817, 169 (*Salmo saurus* Linnæus).

Alpismaris Risso, Europ. Mérid., III, 1826, 458 (*A. risso* Risso, very young).

1236. *Synodus synodus* (Linnæus).

Coast of Brazil and Lesser Antilles.

?*Esox synodus* Linnæus, Syst. Nat., ed. XII, 1766, 516, America; based on *Synodus* of Gronow.

1237. *Synodus saurus* (Linnæus). *Tarentola; Lacerto; Tiru.*

Coasts of southern Europe and neighboring islands, recorded by Doctor Goode from the Bermudas.

Salmo saurus Linnæus, Syst. Nat., Ed. XII, 1766, 511, Mediterranean; after Artedi.

Saurus griseus Lowe, Trans. Zool. Soc. Lond., II, 1841, 188, Madeira.

Saurida mediterranea Swainson, Nat. Hist. Anim., II, 1839, 287, Mediterranean; name only.

Tirus marmoratus Rafinesque, Caratteri, 1810, 56, Palermo.

Alpismaris risso Risso, Europ. Mérid., III, 1826, 458; very young.

Synodus lacerta Goode, Bull., U. S. Nat. Mus., V, 1876, 68, Bermuda specimen; not of Risso.

1238. *Synodus fœtens* (Linnæus). *Lizardfish; Gallwasp; Lagarto; Soapfish.*

Cape Cod to Brazil, very common from South Carolina southward on sandy coasts.

Salmo fœtens Linnæus, Syst. Nat., ed. XII, 1766, 513, South Carolina.

Osmerus albidus Lacépède, Hist. Nat. Poiss., V, 1803, 229, Carolinas; after Linnæus.

Coregonus ruber Lacépède, loc. cit., 263, Martinique; after Plumier.

Esox salmoneus Mitchell, Trans., Lit. Phil. Soc. N. Y., I, 1815, 442, New York.

Saurus longirostris Agassiz, Spix. Pisc. Brasil., 1828, pl. 43, Brazil.

Saurus mexicanus Cuvier, Règne Anim., ed. 2, 1829, 314, Mexico.

Saurus spixianus Poey, Memorias, II, 1861, 304, Cuba.

1239. *Synodus lucioceps* (Ayres).

San Francisco to Santa Barbara, rather common in summer.

Saurus lucioceps Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 69, San Francisco.

1240. *Synodus jenkinsi* Jordan and Bollman.

Gulf of California to Galapagos Islands in 16 to 33 fathoms; common.

Synodus jenkinsi Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 153, off coast of Colombia, Galapagos Islands.

1241. *Synodus scituliceps* Jordan and Gilbert.
Cape San Lucas to Panama.
Synodus scituliceps Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 344, Mazatlan, Mexico.
1242. *Synodus lacertinus* Gilbert.
Acapulco, Mexico; one specimen known.
Synodus lacertinus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 55, Acapulco, Mexico.
1243. *Synodus poeyi* Jordan.
Cuba; abundant.
Synodus poeyi Jordan, Proc. U. S. Nat. Mus., IX, 1886, 526, Habana.
1244. *Synodus intermedius* (Agassiz). *Sand-diver*.
Coast of southern Florida to Brazil; not rare.
Saurus intermedius Agassiz, Spix, Pisc. Brasil., 1828, 81, Brazil.
Saurus anolis Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 483, Bahia, Martinique.
1245. *Synodus evermanni* Jordan and Bollman.
Mazatlan to coast of Colombia; abundant.
Synodus evermanni Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 152, Pacific Ocean off coast of Colombia in 33 fathoms.
1246. *Synodus simulans* Garman.
Off Cocos Island.
Synodus simulans Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 251, Pl. L, fig. 3; towings at surface off Cocos Island.
1247. *Synodus acutus* Garman.
Off Panama.
Synodus acutus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 252, off coast of Panama.
- Genus 405. **BATHYSAURUS** Günther.
Bathysaurus Günther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 181 (*B. ferox* Günther).
1248. *Bathysaurus agassizii* Goode and Bean.
Gulf Stream, in deep water.
Bathysaurus agassizii Goode and Bean, Bull. Mus. Comp. Zool., X, 1882, No. 5, 215, Gulf Stream, 33° N., in 647 fathoms.
1249. *Bathysaurus mollis* Günther.
Southern Pacific to coast of Lower California.
Found off Lower California, 23° N., 1,760 fathoms (only N. Amer. record; Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII, 1925, 10).
Bathysaurus mollis Günther, Ann. Mag. Nat. Hist., 5th ser., II, 1878, 182, middle of South Pacific off Yeddo, in 1,875 and 2,385 fathoms.
- Genus 406. **BATHYLACO** Goode and Bean.
Bathylaco Goode and Bean, Oceanic Ichth., 1895, 57 (*B. nigricans* Goode and Bean).
1250. *Bathylaco nigricans* Goode and Bean.
Gulf of Mexico; off Santa Cruz, at a depth of 2,393 fathoms; a single specimen known.
Bathylaco nigricans Goode and Bean, Oceanic Ichth., 1895, 57, fig. 69, off Santa Cruz, Mexico.
- Genus 407. **SAURIDA** Cuvier and Valenciennes.
Saurida Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 499 (*Salmo tumbil* Bloch).
1251. *Saurida nebulosa* Cuvier and Valenciennes.
West Indies north to St. Eustatius.
Saurida nebulosa Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 504, pl. 649.

Family 100. CHLOROPHTHALMIDÆ

Genus 408. CHLOROPHTHALMUS Bonaparte.

Chloropthalmus Bonaparte, Icon. Fauna Italica, III, 1834, 144 (*C. agassizi* Bonaparte).

Hyphalonedrus Goode, Proc. U. S. Nat. Mus., III, 1880, 483 (*H. chalybeius* Goode).

1252. *Chloropthalmus agassizii* Bonaparte.

Atlantic and Mediterranean; western Atlantic.

Chloropthalmus agassizii Bonaparte, Fauna Italica, 1840, pl. 121, Italy.

1253. *Chloropthalmus chalybeius* (Goode).

Gulf Stream, in from 85 to 167 fathoms.

Hyphalonedrus chalybeius Goode, Proc. U. S. Nat. Mus., III, 1880 (Feb. 16, 1881), 484, Gulf Stream off Rhode Island.

1254. *Chloropthalmus truculentus* Goode and Bean.

One specimen, Blake station LII, off Barbados.

Chloropthalmus truculentus Goode and Bean, Oceanic Ichth., 1895, 61, fig. 72, off Barbados in 158 fathoms.

1255. *Chloropthalmus mento* Garman.

Off Panama.

Chloropthalmus mento Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 254, 3, Pl. LIV, figs. 1-1c, Albatross stations 3385, 3386, and 3389 in 210 to 286 fathoms.

Family 101. SUDIDÆ

Genus 409. SUDIS Rafinesque.

Sudis Rafinesque, Caratteri, 1810, 60 (*S. hyalina* Rafinesque).

1256. *Sudis ringens* Jordan and Gilbert.

Santa Barbara Channel, Calif., the only specimen known taken from the stomach of a hake, itself found in the stomach of a long-finned albicore (*Germo*).

Sudis ringens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 273, Santa Barbara Channel.

1257. *Sudis intermedius* (Poey).

Matanzas, Cuba; one specimen known.

Paralepis intermedius Poey, Repertorio, II, 1867, 416, Mantanzas, Cuba.

Genus 410. ARCTOZENUS Gill.

Arctozenus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 188 (*Paralepis borealis* Reinhardt).

1258. *Arctozenus borealis* (Reinhardt).

Deep waters of Arctic America.

Paralepis borealis Reinhardt, Vidensk. Selsk. Naturv. Math. Afhandl., VII, 1832, 115, Greenland.

1259. *Arctozenus coruscans* (Jordan and Gilbert).

Puget Sound; one specimen known.

Paralepis coruscans Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 411, Port Townsend, Wash.

Genus 411. PARALEPIS Risso.

Paralepis Risso, in Cuvier, Règne Anim., ed. 1, 1817 (*Coregonus paralepis* Risso = *Paralepis coregonoides* Risso).

1260. *Paralepis coregonoides* Risso.

Mediterranean, rare; Gulf stream at Albatross station 2393.

Paralepis coregonoides Risso, Europ. Mérid., III, 1826, 472, Pl. VII, fig. 15, Nice.

1261. *Paralepis barracudina* Fowler and Phillips.

Coast of New Jersey.

Paralepis barracudina Fowler and Phillips, Proc. Acad. Nat. Sci. Phila., LXII, 1910, 403, with figure, Corsons Inlet, Cape May County, N. J.

Genus 412. LESTIDIOPS Hubbs.

Lestidiops Hubbs, Univ. Calif. Publ. Zool., XVI, 1916, 154 (*L. sphy-rænops* Hubbs).

1262. Lestidiops sphyraenops Hubbs.

Lestidiops sphyraenops Hubbs, Univ. Calif. Pub. Zool., XVI, 1916, 155, pl. 18, Avalon Bay, Santa Catalina Island.

Family 102. BATHYPTEROIDÆ**Genus 413. BATHYPTEROIS Günther.**

Bathypterois Günther, Ann. Mag. Nat. Hist., ser. 5, II, 1878, 83 (*B. longifilis* Günther).

Synapteretmus Goode and Bean, Oceanic Ichth., 1895, 64 (*Bathypterois quadrifilis* Günther).

Subgenus SYNAPTERETMUS Goode and Bean.**1263. Bathypterois quadrifilis Günther.**

Brazil; St. Vincent.

Bathypterois quadrifilis Günther, Ann. Mag. Nat. Hist., II, 1878, 184, off coast of Brazil in 500 to 770 fathoms.

1264. Bathypterois pectoralis Garman.

Off Central America in deep water.

Bathypterois pectoralis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 257, Pl. K, fig. 1, Albatross stations 3376, 3393, 3407, and 3431 in 885 to 1,132 fathoms.

1265. Bathypterois ventralis Garman.

Off west coast of Mexico.

Bathypterois ventralis Garman, Mem., Mus. Comp. Zool., XXIV, 1899, Pl. LV, fig. 1, 256, Albatross stations 3418 and 3425 in 660 to 680 fathoms.

Family 103. BENTHOSAURIDÆ**Genus 414. BENTHOSAURUS Goode and Bean.**

Benthosaurus Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 168 (*B. grallator* Goode and Bean).

1266. Benthosaurus grallator Goode and Bean.

Gulf of Mexico and Gulf Stream, in lat. 24° 33' N., long. 84° 23' W., and lat. 39° 3' 15" N., long 70° 50' 45" W.

Benthosaurus grallator Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 168, Gulf Stream.

Family 104. MYCTOPHIDÆ.³² Lanternfishes**Genus 415. MACROSTOMA Risso.**

Macrostoma Risso, Europ. Mérid., III, 1826, 447 (*Macrostoma angustidens* Risso); not *Macrostomus* Wied., a genus of insects.

Notoscopelus Günther, Cat., V, 1864, 405 (*Lampanyctus resplendens* Richardson), to replace *Macrostoma*, regarded as preoccupied.

Catablemella Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., III, 1890, 3, 24, (*C. brachychir* Eigenmann and Eigenmann).

1267. Macrostoma angustidens Risso. Prickfish; Maire d'Amplora.

Atlantic and Indian Oceans, Norway and Greenland.

Macrostoma angustidens Risso, Europ. Mérid., III, 1826, 448, off Nice.

1268. Macrostoma quercinum (Goode and Bean).

Western Atlantic; Mediterranean.

Notoscopelus quercinus Goode and Bean, Oceanic Ichth., 1895, 83, fig. 97, Grand Banks, Newfoundland.

1269. Macrostoma margaritiferum (Goode and Bean).

Grand Banks of Newfoundland.

Notoscopelus margaritiferus Goode and Bean, Oceanic Ichth., 1895, 84, fig. 98, off Banquereau.

³² Several species recently described as *Myctophum* may prove to belong to other genera.

- 1270. *Macrostoma castaneum*** (Goode and Bean).
Grand Banks.
Notoscopelus castaneus Goode and Bean, *Oceanic Ichth.*, 1895, 84, fig. 95, Grand Banks, Newfoundland.
- Genus 416. CERATOSCOPELUS** Günther.
Ceratospelus Günther, *Cat.*, V, 1864, 405 and 412 (*Scopelus madeirensis* Lowe).
- 1271. *Ceratospelus madeirensis*** (Lowe).
Atlantic and Mediterranean; west to the Grand Banks.
Scopelus madeirensis Lowe, *Proc. Zool. Soc. Lond.*, 1839, 87, Madeira.
- Genus 417. LAMPANYCTUS** Bonaparte.
Lampanyctus Bonaparte, *Fauna Italica*, Fasc. XXVII, 1840 (*L. bonapartei* Bonaparte).
- 1272. *Lampanyctus guntheri*** Goode and Bean.
Grand Banks.
Lampanyctus guntheri Goode and Bean, *Oceanic Ichth.*, 1895, 79, fig. 90, Grand Banks.
- 1273. *Lampanyctus gemmifer*** Goode and Bean.
Gulf Stream.
Lampanyctus gemmifer Goode and Bean, *Oceanic Ichth.*, 1895, 80, fig. 88, Grand Banks, in lat. 39° 40' N., long. 71° 35' W., in 538 fathoms.
- 1274. *Lampanyctus lacerta*** Goode and Bean.
Gulf of Mexico.
Lampanyctus lacerta Goode and Bean, *Oceanic Ichth.*, 1895, 81, fig. 89, Gulf of Mexico, in lat. 28° 38' 30'' N., long. 85° 52' 30'' W.
- 1275. *Lampanyctus ritteri*** Gilbert.
Coast of California; Monterey Bay; San Clemente.
Lampanyctus ritteri Gilbert, *Proc. U. S. Nat. Mus.*, XLVII, 1915, 318, pl. 15, fig. 3, Monterey Bay; San Clemente Island, Calif.
- Genus 418. NYCTIMASTER** Jordan.
Nyctimaster Jordan, *Proc. U. S. Nat. Mus.*, LIX, 1921, 645 (*Lampanyctus jordani* Gilbert).
Most of the species hitherto referred to *Lampanyctus*, having the scales of the lateral line not larger than the others, should be referred to *Nyctimaster*.
- 1276. *Nyctimaster townsendi*** (Eigenmann and Eigenmann).
Cortez Banks near San Diego, in 45 fathoms.
Myctophum townsendi Eigenmann and Eigenmann, *West Amer. Scientist*, 1889, 125, Cortez Banks, off San Diego, Calif.
- 1277. *Nyctimaster alatus*** (Goode and Bean).
Gulf of Mexico.
Lampanyctus alatus Goode and Bean, *Oceanic Ichth.*, 1895, 79, Gulf Stream.
- Genus 419. LAMPADENA** Goode and Bean.
Lampadena Goode and Bean, *Oceanic Ichth.*, 1895, 85 (*L. speculigera* Goode and Bean).
- 1278. *Lampadena speculigera*** Goode and Bean.
Gulf Stream.
Lampadena speculigera Goode and Bean, *Oceanic Ichth.*, 1895, 85, fig. 99, Gulf Stream, lat. 39° 48' N., long. 70° 36' W., in 551 fathoms.
- Genus 420. NANNOBRACHIUM** Günther.
Nannobrachium Günther, *Deep Sea Fishes*, *Challenger*, 1887, 199, (*N. nigrum* Günther).
- 1279. *Nannobrachium nannochir*** (Gilbert).
Alaska to Santa Barbara Islands, in deep water.
Myctophum nannochir Gilbert, *Proc. U. S. Nat. Mus.*, XIII, 1890, 51, off Washington, Albatross stations 2925, 3072, and others, in 266 to 685 fathoms.

1280. *Nannobranchium leucopsarum* (Eigenmann and Eigenmann).
Pacific coast of America, from Alaska to San Diego.
Myctophum (*Stenobranchius*) *leucopsarum* Eigenmann and Eigenmann,
Proc. Calif. Acad. Sci., 2d ser., III, 1890, 5, off Point Loma, Calif.,
in stomachs of *Sebastodes*.
1281. *Nannobranchium macdonaldi* Goode and Bean.
Gulf Stream.
Nannobranchium macdonaldi Goode and Bean, Oceanic Ichth., 1895, 94,
fig. 110, Gulf Stream.
1282. *Nannobranchium regale* (Gilbert).
Santa Barbara Channel, in deep water.
Myctophum regale Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 544,
Santa Barbara Channel, Albatross station 2923, in 822 fathoms.
1283. *Nannobranchium mexicanum* (Gilbert).
Coast of Lower California, in deep water.
Myctophum mexicanum Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 51,
off Lower California, at Albatross stations 3008 and 3009 in 306
and 857 fathoms.
- Genus 421. *ÆTHOPRORA* Goode and Bean.
Æthoprora Goode and Bean, Oceanic Ichth., 1895, 86 (*Scopelus meto-*
poclampus Cocco).
1284. *Æthoprora effulgens* Goode and Bean.
Western Atlantic.
Æthoprora effulgens Goode and Bean, Oceanic Ichth., 1895, 87, fig.
103, Browns Bank and Albatross station 2127, 19° 45' N., 75° W.,
in 689 fathoms.
1285. *Æthoprora lucida* Goode and Bean.
Gulf Stream.
Æthoprora lucida Goode and Bean, Oceanic Ichth., 1895, 87, fig. 102,
Gulf Stream, lat. 19° 45' N., long. 75° 4' W.
- Genus 422. *COLLETTIA* Goode and Bean.
Collettia Goode and Bean, Oceanic Ichth., 1895, 88 (*Myctophum rafinesquei*
Cocco).
1286. *Collettia rafinesquei* (Cocco).
Mediterranean and Atlantic; Gulf Stream off the New England coast.
Nyctophus rafinesquei Cocco, Aleuni Salmon, etc., 1820, 20, Messina.
1287. *Collettia nocturna* (Poey).
Coast of Cuba.
Myctophum nocturnum Poey, Memorias, II, 1861, 426, Cuba.
- Genus 423. *DIAPHUS* Eigenmann and Eigenmann.
Diaphus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser.,
III, 1890, 3 (*Scopelus engraulis* Günther).
1288. *Diaphus theta* Eigenmann and Eigenmann.
Point Loma, near San Diego, Calif., to coast of Oregon.
Diaphus theta Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d. ser., III, March, 1890, 4, Point Loma, near San Diego.
Myctophum protoculus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 52,
July 2, coast of Washington, in 584 fathoms, Albatross station 3072,
in 584 fathoms.
- Genus 424. *RHINOSCOPELUS* Lütken.
Rhinoscopelus Lütken, Vidensk. Selsk. Naturv. Copenhagen, VII,
1892, 237 (*Scopelus coccoi* Cocco).
Alysia Lowe, Proc. Zool. Soc. Lond., 1839, 87 (*A. loricata* Lowe=
Scopelus coccoi Cocco; name preoccupied).
1289. *Rhinoscopelus andrææ* (Lütken).
Open Atlantic and Indian Ocean; Gulf Stream.
Scopelus andrææ Lütken, Spolia Atlantica, 1892, 25, North Atlantic.
1290. *Rhinoscopelus rarus* (Lütken).
Open Atlantic, west to 50° W., 33° N.
Scopelus rarus Lütken, Spolia Atlantica, II, 1892, 26, North Atlantic.

- 1291. *Rhinoscopelus coccoi* (Cocco).**
 West Atlantic, Gulf Stream, Mediterranean, ranging from Newfoundland to Africa.
Scopelus coccoi Cocco, Giorn. Sci. Litt. Art. Sicilia (No. 77), Palermo, 1829, 143 ("Scopelo de Cocco"), Palermo.
Alysia loricata Lowe, Proc. Zool. Soc. Lond., 1839, 87, Madeira.
- Genus 425. MYCTOPHUM Rafinesque. Lanternfishes.**
Myctophum Rafinesque, Indice, 1810, 56 (*M. punctatum* Rafinesque).
Scopelus Cuvier, Règne Anim., ed. 1, 1817, 56 (*Gasteropelecus humboldtii* Risso).
Nyctophus Cocco, Giorn. Sci. Litt. Art. Sicil., 1829, 44 (*N. rafinesquei*, substitute for *Myctophum*).
- 1292. *Myctophum punctatum* Rafinesque.**
 Warmer parts of the Atlantic, Grand Banks, and from the Gulf Stream to the Mediterranean.
Myctophum punctatum Rafinesque, Indice, 1810, 56, Pl. II, fig. 5, Palermo.
Scopelinus caninianus Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 445, coast of Italy.
- 1293. *Myctophum affine* (Lütken).**
 Open Atlantic west to 63° W., 38° N., and in the open Pacific. Perhaps more than one species included.
Scopelus affine Lütken, Spolia Atlantica, II, 1892, 32, open Atlantic.
Myctophum nitidulum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 266, Pl. LVI, fig. 3, lat. 27° 50' N., long. 145° 45' 30" W.
Rhinoscopelus oceanicus Jordan and Evermann, Bull. U. S. Fish Com., XX, 1902, 168, Hawaiian Islands.
Myctophum margaritatum Gilbert, loc. cit., XXIII, pt. 2, 1905, p. 596, pl. 68, fig. 2, off south coast of Molokai, Hawaiian Islands.
- 1294. *Myctophum humboldti* (Risso).**
 Open seas, Mediterranean, and Atlantic on both shores.
Gasteropelecus humboldtii Risso, Ichth. Nice, 1810, 358, Nice.
- 1295. *Myctophum californiense* Eigenmann and Eigenmann.**
 Cortez Banks, San Diego, Calif.
 ?*Myctophum boops* Richardson, Voy. *Erebus* and *Terror*, 1845, 39, open sea between Australia and New Zealand.
Myctophum californiense Eigenmann and Eigenmann, West Amer. Scientist, Nov. 9, 1889, 124, San Diego, Calif.
- 1296. *Myctophum gracile* (Lütken).**
 Open Atlantic, west to 48° W., 23° N.
Scopelus gracilis Lütken, Spolia Atlantica, II, 1892, 35, open Atlantic.
 ?*Myctophum hians* Richardson, Voy. *Erebus* and *Terror*, 1845, 41, pl. 27, open sea, locality unknown.
- 1297. *Myctophum benoiti* (Cocco).**
 Mediterranean to Norway and Greenland.
Scopelus benoiti Cocco, Lett. su Salmon., 1838, 12, pl. 2, fig. 4, Messina.
- 1298. *Myctophum hygomi* (Lütken).**
 North Atlantic, occasional in our waters.
Scopelus hygomi Lütken, Spolia Atlantica, 1892, 257, North Atlantic.
Myctophum remiger Goode and Bean, Oceanic Ichth., 1895, 75, western Atlantic.
- 1299. *Myctophum oculeum* Garman.**
 Off Panama in deep water.
Myctophum oculeum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 260, Pl. LVI, fig. 2, numerous stations of the *Albatross*.
- 1300. *Myctophum atratum* Garman.**
 Off western Mexico in the open sea.
Myctophum atratum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 268, *Albatross* station 3433, lat. 25° 26' 15" N., long. 109° 48' W., in 1,218 fathoms.

1301. **Myctophum laternatum** Garman.
Off Pacific coast of Mexico in open sea.
Myctophum laternatum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 267, Pl. LVI, fig. 7, several stations of the *Albatross*.
1302. **Myctophum aurolaternatum** Garman.
Off Panama.
Myctophum aurolaternatum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 264, Pl. LV, fig. 3, *Albatross* station 3382, lat. 6° 21' N., long. 80° 41' W. at surface.
1303. **Myctophum luminosum** Garman.
Off Panama.
Myctophum luminosum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 263, Pl. LV, fig. 2, *Albatross* station 3042, lat. 0° 57' 30'' S., long. 89° 3' 30'' W., in 421 fathoms.
1304. **Myctophum tenuiculum** Garman.
Off Panama in deep water.
Myctophum tenuiculum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 262, pl. 5, fig. 5, *Albatross* station 3382, lat. 6° 21' N., 80° 41' W., at surface.
- Genus 426. **BENTHOSEMA** Goode and Bean.
Benthoosema Goode and Bean, Oceanic Ichth., 1895, 76 (*Scopelus muelleri* Gmelin).
1305. **Benthoosema arcticum** (Lütken).
Davis Straits, Greenland.
Scopelus arcticus Lütken, Spolia Atlantica, 1892, 29, Davis Straits.
1306. **Benthoosema muelleri** (Gmelin).
North Atlantic, occasional from Norway to Greenland, more abundant southward to South Carolina; probably always in very deep water.
Salmo mülleri Gmelin, Syst. Nat., 1788, 1378, Norway; after Strom.
Scopelus glacialis Reinhardt, Overs, 1835, 36, Greenland.
- Genus 427. **SCOPELENGYS** Alcock.
Scopelengys Alcock, Ann. Mag. Nat. Hist., ser. 6, VI, 1890, 302 (*S. tristis* Alcock).
1307. **Scopelengys dispar** Garman.
Off Panama in deep water.
Scopelengys dispar Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 254, Pl. LIV, figs. 2-2d, *Albatross* stations 3353, 3360, 3382, and 3383, in from 695 to 1,832 fathoms.
- Genus 428. **TARLETONBEANIA** Eigenmann and Eigenmann.
Tarletonbeania Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., IV, 1891, 6 (*T. tenua* Eigenmann and Eigenmann).
1308. **Tarletonbeania crenularis** (Jordan and Gilbert).
San Diego and vicinity.
Myctophum crenulare Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 274, Santa Barbara, Calif.
Myctophum procellarium Bean, in Jordan and Gilbert, loc. cit., 467, off Straits of Fuca.
Tarletonbeania tenua Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., IV, 1890, 7, Coronado Islands near San Diego, Calif.

Family 105. IPNOPIDÆ

Genus 429. IPNOPS Günther.

Ipnops Günther, Ann. Mag. Nat. Hist., II, 1878, 187 (*I. murrayi* Günther).

1309. **Ipnops murrayi** Günther.

Bottom fish, at about 2,000 fathoms; coast of Brazil, Tristan da Cunha, Celebes, in tropical America (24° 36' N., 84° W.) and off Bequia, Windward Islands.

Ipnops murrayi Günther, Ann. Mag. Nat. Hist., II, 1878, 187, coast of Brazil, etc.

1310. *Ipnops agassizi* Garman.

Pacific coast of Central America in deep water.

Ipnops agassizi Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 259, Pl. H, figs. 2, 2a, *Albatross* station 3413, lat. 2° 34' N., long. 92° 6' W., in 1,360 fathoms.**Family 106. OMOSUDIDÆ****Genus 430. OMOSUDIS Günther.***Omosudis* Günther, *Challenger* Rept., XXII, 1887, 201 (*O. lowii* Günther).**1311. *Omosudis lowii* Günther.**Open sea; Gulf Stream at *Albatross* station 2392.*Omosudis lowii* Günther, *Challenger* Rept., XXII, 1887, 201, pl. 52, figs. C, C', Philippine Islands, Magdalena.**Family 107. ALEPISAURIDÆ. Handsawfishes****Genus 431. ALEPISAURUS Lowe.***Plagyodus* Steller, in Pallas, Zoogr. Rosso-Asiat., III, 1811, 383 (no type named, doubtless *P. æsculapius* Bean); given in oblique form only, as *Plagyodontem*.*Alepisaurus* Lowe, Proc. Zool. Soc. Lond., I, 1833 (*A. ferox* Lowe).**1312. *Alepisaurus ferox* Lowe. Lancelfish.**

Deep waters of the Atlantic; occasional off the coasts of Nova Scotia, Massachusetts, and on the Grand Banks.

Alepisaurus ferox Lowe, Trans. Zool. Soc. Lond., I, 1833, 395, Madeira.*Alepisaurus azureus* Cuvier and Valenciennes, Hist. Nat. Poiss., XXII, 1849, 530, Canaries.**1313. *Alepisaurus æsculapius* (Bean). Wolfish; Subotka.**

Coast of Alaska southward to California.

Plagyodus Steller in Pallas, Zoogr. Rosso-Asiat., III, 1811, 383, Kurile Islands.*Alepidosaurus æsculapius* Bean, Proc. U. S. Nat. Mus., V, 1882, 661, Iliuliuk, Unalaska.**Genus 432. CAULOPUS Gill. Handsawfishes.***Caulopus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 128 (*Alepidosaurus borealis* Gill).**1314. *Caulopus altivelis* (Poey).**

Cuba, in deep water.

Alepisaurus altivelis Poey, Memorias, II, 1861, 302, Cuba.*Alepidosaurus (Caulopus) poeyi* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 131, Cuba.**1315. *Caulopus borealis* (Gill). Handsawfish; Serra.**

Pacific coast of America from Alaska to Puget Sound.

Alepidosaurus borealis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 128, Puget Sound.*Alepidosaurus serra* Gill, loc. cit., 129, "Monterey, Lower California."**Order AA. CETUNCULI****Family 108. RONDELETHIDÆ****Genus 433. RONDELETIA Goode and Bean.***Rondeletia* Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894, 454 (*R. bicolor* Goode and Bean).**1316. *Rondeletia bicolor* Goode and Bean.**

Gulf Stream.

Rondeletia bicolor Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894 (1895), 454, pl. 17, fig. 7, and Oceanic Ichth., 1895, 68, fig. 77, at *Albatross* station 2724 in 1,641 fathoms.

Family 109. CETOMIMIDÆ

Genus 434. CETOMIMUS Goode and Bean.

Cetomimus Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894, 453
(*C. gillii* Goode and Bean).

1317. *Cetomimus gillii* Goode and Bean.

Gulf Stream.

Cetomimus gillii Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894
(1895), 452, pl. 17, fig. 2, and in Oceanic Ichth., 1895, 69, fig. 78,
Gulf Stream, in lat. 39° 35' N., long. 71° 24' 30'' W.

1318. *Cetomimus storeri* Goode and Bean.

Gulf Stream.

Cetomimus storeri Goode and Bean, Proc. U. S. Nat. Mus., XVII, 1894
(1895), 453, pl. 17, fig. 3, and in Oceanic Ichth., 1895, 69, fig. 79,
Gulf Stream at Albatross station 2222 in 1,535 fathoms.

Order BB. XENOMI

Family 110. DALLIIDÆ. Alaska blackfish

Genus 435. DALLIA Bean.

Dallia Bean, Proc. U. S. Nat. Mus., II, 1879, 358 (*D. pectoralis* Bean).

1319. *Dallia pectoralis* Bean. Alaska blackfish; *Charnia ryba*.

Streams and ponds of northern Alaska and Siberia.

Dallia pectoralis Bean, Proc. U. S. Nat. Mus., II, 1879, 358, St.
Michaels, Alaska.

Umbra delicatissima Smitt, Offer. Kongl. Vetensk. Akad. Forh. Arg.,
Stockholm, 1881, 38, pl. 5, fig. 1, Pittlekag, Siberia.

Order CC. HAPLOMI

Family 111. ESOCIDÆ. Pikes

Genus 436. ESOX Linnæus.

Esox Linnæus, Syst. Nat., ed. X, 1758, 313 (*E. lucius* Linnæus).

Lucius Geoffroy, Deser. de 719 Plantes, etc., 1767, 407 (*Esox lucius*
Linnæus).

Lucius Rafinesque, Caratteri, 1810, 59 (*Esox lucius* Linnæus = *L. vorax*
Rafinesque).

Picorellus Rafinesque, Ichth. Ohiensis, 1820, 70 (*Esox vittatus* Rafinesque,
a mythical species).

Masculongus Jordan, Klippart's rept., Ohio Fish Com., 1878, 92 (*Esox*
masquinongy Mitchill = *Esox nobilior* Thompson).

Kenoza Jordan and Evermann, Fishes North and Mid. Amer., 1896,
626 (*Esox americanus* Gmelin).

Subgenus MASCALONGUS Jordan.

1320. *Esox masquinongy* Mitchill. *Muskallunge*,³³ *Muskellunge*; *Maskinongy*;
Muscalonge; *Great pike*.

Great Lakes region; Upper Mississippi Valley and northward.

Esox masquinongy Mitchill, "Mirror," 1824, 297, Lake Erie.

Esox masquinongy Mitchill, in Kirtland, Fishes of Ohio, 1838, 194,
Lake Erie.

Esox nobilior Thompson, Proc. Bost. Soc. Nat. Hist., III, 1850, 163,
Lake Champlain.

Esox nobilis Kirtland, Proc. Cleveland Acad. Nat. Sci., 1854, 84, Lake
Erie; name a slip of the pen for *Esox nobilior*.

1321. *Esox masquinongy ohiensis* Kirtland.

Ohio River and its tributaries; Chautauqua Lake, N. Y.

Esox salmoneus Rafinesque, Amer. Month. Mag., III, 1818, 447, Ohio
River; not *Esox salmoneus* Mitchill 1815 = *Synodus fatens*.

Esox ohiensis Kirtland, Proc. Cleveland Acad. Nat. Sci., Feb. 7, 1854,
Mahoning River, Ohio.

³³ The common names of the fishes of the pike family, and of the pike perches, with which they are confused, are too numerous to be given here. As Weed, who gives many of them (Field Mus. Nat. Hist., Zool. leaflet No. 9, 1927) remarks, "There are as many as 80 names for 1 fish and 7 fish for one name."

1322. *Esox masquinongy immaculatus* Garrard. *Great northern pike*.
Lakes of Wisconsin and Minnesota.
Esox immaculatus Garrard, MS.; noticed in various fishing journals;
Eagle Lake, northern Wisconsin.

Subgenus **ESOX** Linnæus.

1323. *Esox estor* ³⁴ LeSueur. *American pike*.
Northern North America; eastern United States south to New York
and the Ohio River.
Esox estor LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 413, Lake
Erie at Buffalo.
??*Esox vittatus* Rafinesque, Amer. Month. Mag., III, 1818, 447, Ohio
River; mythical; described from hearsay.
??*Esox australis* Cuvier and Valenciennes, Hist. Nat. Poiss., XVII,
1846, 323, locality unknown; thought to be Van Diemen's Land
(Tasmania).
Esox depraudus LeSueur in Cuvier and Valenciennes, Hist. Nat. Poiss.,
XVIII, 1846, 336, Wabash River, New Harmony, Ind.
Esox lugubris LeSueur, loc. cit., 338, Crab Orchard, Ky.
Esox boreus Agassiz, Lake Superior, 1850, 317, Lake Superior.
Esox lucoides Agassiz and Girard, in Herbert Forrester's Fish and
Fishing, 1850, 154, Lake Superior.

Subgenus **KENOZA** Jordan and Evermann.

1324. *Esox niger* LeSueur. *Eastern pickerel; Green pike; Jack*.
Massachusetts to Florida, in lowland streams and swamps.
Esox reticulatus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1818, 414,
Connecticut River, Adams, Mass.; Philadelphia; name preoccupied
in Europe.
?*Esox phaleratus* Say in LeSueur, loc. cit., 416, St. Augustine, Fla.;
unidentifiable.
Esox niger LeSueur, loc. cit., 415, South Carolina.
Esox tridecemlineatus Mitchill, "Mirror," 1825, 361, Oneida Lake,
N. Y.
1325. *Esox vermiculatus* LeSueur. *Little pickerel; Grass pike*.
Mississippi Valley and tributaries of Lake Erie and Lake Michigan,
south to Mississippi and Arkansas.
Esox vermiculatus LeSueur in Cuvier and Valenciennes, Hist. Nat.
Poiss., XVIII, 1846, 333, Wabash River, New Harmony, Ind.
Esox lineatus LeSueur, loc. cit., 335, Wabash River, New Harmony, Ind.
Esox crassus Agassiz, Amer. Jour. Sci. Arts, 1854, 308, Tennessee
River, Huntsville, Ala.
Esox umbrosus Kirtland, Proc. Cleveland Acad. Nat. Sci., 1854, 79,
small Bay of Rocky River, Rockport, near Cleveland, Ohio.
Esox cypho Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 78, Water-
ford, Oakland County, Mich.
Esox porosus Cope, Trans. Amer. Phil. Soc. Phila., XIII, 1866, 408,
Waterford, Oakland County, Mich.; substitute for *cypho* regarded
as an inept name.
1326. *Esox americanus* Gmelin. *Barred pickerel*.
Esox lucius americanus Gmelin, Syst. Nat., 1788, 1390, Long Island,
N. Y.; after Schöpl.
Esox scomberius Mitchill, Amer. Month. Mag., 1818, 322, Murderers
Creek, N. Y.
Esox fasciatus DeKay, New York Fauna: Fishes, 1842, 224, Murderers
Creek and other streams near New York.
Esox ornatus Girard, "Proc. Bost. Soc. Nat. Hist., V, 1854, 41," Proc.
Acad. Nat. Sci., Phila., XXXVII, 1885, 369, 41; Charles River,
Mass.
Esox ravenoli Holbrook, Ichth. South Carolina, 1860, 201, Charleston,
S. C.

³⁴ Not clearly separated from *Esox lucius* L. of Europe. *

Family 112. UMBRIDÆ. Mud minnows

Genus 437. UMBRA Müller.

Umbra Krämer, MS., in Müller, Anim. Austr. Infer., 1756; Müller, Abhandl. Akad. Wiss. Wien, 1842, 188 (*crameri*).

Melanura Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135 (*M. annulata* Agassiz, not *Exoglossum annulatum* Rafinesque, etc. = *Leuciscus pygmæus* DeKay).

1327. *Umbra limi* (Kirtland). Mud minnow; Dogfish.

Great Lakes region and upper Mississippi Valley in weedy streams and ponds; Lake Champlain to Minnesota. A hardy and attractive aquarium fish.

Hydrargira lima Kirtland, Bost. Jour. Nat. Hist., III, 1840, 277, streams in northern Ohio.

Hydrargira fusca Thompson, Hist. Vermont, 1842, 137, Lake Champlain.

Hydrargira atricauda DeKay, N. Y. Fauna: Fishes, 1842, 220, Lake Champlain.

1328. *Umbra pygmæa* (DeKay). Striped mud minnow; Eastern mud minnow. Lowland streams and swamps coastwise, from Long Island to the Neuse River, N. C.; locally abundant.

Leuciscus pygmæus DeKay, New York Fauna: Fishes, 1842, 214, Tappan, Rockland County, N. Y.

Fundulus fuscus Ayres, Bost. Jour. Nat. Hist., IV, 1843, 296, Brookhaven, Long Island.

Umbra pygmæa bilineata Shufeldt, Aquatic Life, July, 1917, tributaries of Chesapeake Bay; slight color variation.

Order DD. CYPRINODONTES. (Microcyprini)

Family 113. CYPRINODONTIDÆ. Killifishes

Genus 438. PROFUNDULUS Hubbs.

Profundulus Hubbs, Misc. Pub. 13, Mus. Zool. Univ. Mich., Jan. 18, 1924, 12 (*Fundulus punctatus* Günther).

1329. *Profundulus punctatus* (Günther).

Southern Mexico and Central America in streams and lakes, south to Ecuador.

Fundulus punctatus Günther, Cat., VI, 1866, 320, Chiapas.

Fundulus guatemalensis Günther, loc. cit., 321, Lake Duenas.

Fundulus pachycephalus Günther, loc. cit., 321, Lake Atitlan, Guatemala.

1330. *Profundulus labialis* (Günther).

Rivers of Guatemala in Atlantic drainage, Lake Yzabal, Rio Chisoy and Rio San Geronimo.

Fundulus labialis Günther, Cat., VI, 1866, 319, Rio San Geronimo, Guatemala, Yzabal.

1331. *Profundulus oaxacæ* (Meek).

Streams of Oaxaca, Mexico.

Fundulus oaxacæ Meek, Pub., Field Col. Mus., Zool., III, 1902, 90, Oaxaca, Mexico.

1332. *Profundulus candalarius* Hubbs.

Profundulus candalarius Hubbs, Misc. Pub. 13, Mus. Zool., Univ. Mich., Jan. 18, 1924, 15, Candalaria, Guatemala, Rio Chiapas Basin, Atlantic drainage.

Genus 439. CUBANICHTHYS Hubbs.

Cubanichthys Hubbs, Misc. Pub. Univ. Mich. Mus. Zool., No. 16, July 9, 1926, 4 (*Fundulus cubensis* Eigenmann).

1333. *Cubanichthys cubensis* (Eigenmann).

Streams of Pinar del Rio, Cuba.

Fundulus cubensis Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903), 222, Pinar del Rio, Cuba.

Genus 440. LEPTOLUCANIA Myers.

Leptolucania Myers, Amer. Mus. Novitates, June 6, 1924, 8 (*Heterandria ommata* Jordan = *Zygonecetes manni* Hay).

1334. *Leptolucania ommata* (Jordan).

Florida; Indian River and Santa Fe River, and their tributaries.

Heterandria ommata Jordan, Proc. U. S. Nat. Mus., VII, 1884, 323, Indian River, Fla.

Zygonectes manni Hay, loc. cit., VIII, 1885, 555, Yellow Water River, Fla.

Genus 441. *CHRIOPEOPS* Fowler.

Chrioeps Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 425 (*Lucania goodei* Jordan).

1335. *Chrioeps goodei* (Jordan).

Waters of the Florida Everglades; locally abundant.

Lucania goodei Jordan, Proc. U. S. Nat. Mus., II, 1879, 240, Arlington River, Fla., a tributary of the St. Johns.

Genus 442. *LUCANIA* Girard.

Lucania Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118 (*Limia venusta* Girard); not *Lucanus*, a genus of beetles.

1336. *Lucania parva* (Baird and Girard). *Rainwaterfish*; *Little killifish*.

Atlantic coast from Connecticut to Key West, Texas, and Mexico.

Cyprinodon parvus Baird and Girard, Ninth Smithson. Rept., 1854 (1855), 345, Long Island.

Limia venusta Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 71, pl. 39, figs. 20-23, Indianola, Tex.

Lucania affinis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118, Matamoros, Mexico.

Genus 443. *FUNDULUS* Lacépède.

Fundulus Lacépède, Hist. Nat. Poiss., V, 1803, 37 (*Fundulus mudfish* Lacépède = *Cobitis heteroclitus* Linnaeus).

Hydrargyra Lacépède, loc. cit., 378 (*H. swampina* Lacépède = *Fundulus majalis* Walbaum).

Borborys (Broussonet) Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 205 (*Cobitis heteroclitus* Linnaeus).

Gambusinus Jordan and Evermann, Fish. North and Mid. Amer., 1896, 633 (*Fundulus rathbuni* Jordan and Meek).

Galasaccus Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 417 (*Hydrargyra similis* Baird and Girard).

1337. *Fundulus heteroclitus* (Linnaeus). *Common killifish*; *Minnow*; *Pike minnow*; *Mummichog*; *Mud-minnow*; *Muddabber*; *Cobbler*.

Coast of Maine to the Rio Grande; Gulf coast; common in brackish waters.

Cobitis heteroclitus Linnaeus, Syst. Nat., ed. XII, 1766, 500, Charleston, S. C.

Pacilia canicola Bloch and Schneider, Syst. Ichth., 1801, 452, Carolinas.

Fundulus mudfish Lacépède, Hist. Nat. Poiss., V, 1803, 37, Carolinas.

Hydrargyra swampina Lacépède, loc. cit., 378, South Carolina.

Fundulus nisorius Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 456, reported from Gaboon, West Africa, appears to be *heteroclitus*, wrong locality.

1338. *Fundulus heteroclitus fonticola* Cuvier and Valenciennes.

West Indies.

Fundulus fonticola Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 148 (198), mountain springs of Porto Rico.

Fundulus antillarum Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 418, fig. 1, St. Martins, West Indies.

1339. *Fundulus heteroclitus bermudæ* Günther. *Mangrove minnow*.

Bermudas.

Fundulus bermudæ Günther, Ann. Mag. Nat. Hist., ser. 4, XIV, 1874, 370, Bermudas.

Fundulus rhizophoræ Goode, Amer. Jour. Sci. Arts, XIII, 1877, 298, Basden Pond, Bermudas.

1340. *Fundulus heteroclitus macrolepidotus* (Walbaum). *Common cobbler; Killifish; Catfish; Dogfish; Killy; Killie; River minnow; Mummichog; Blunthead.*
Maine to Virginia; common in brackish waters. Hardly distinct from *F. heteroclitus*, of which it is the northern representative.
Cobitis macrolepidota Walbaum, Artedi Pisc., III, 1792, 11, Long Island; after Schöpfung.
Cobitis killifish Walbaum, loc. cit., 12, Long Island; after Schöpfung.
Esox pisciculus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 440, New York.
Esox pisculentus Mitchill, loc. cit., 441, New York.
Hydrargyra nigrofasciata LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 133, Newport, R. I.
Fundulus viridescens DeKay, New York Fauna: Fishes, 1842, 217, New York.
Fundulus zebra DeKay, loc. cit., 218, New York.
Hydrargyra ornata LeSueur, loc. cit., 131, Delaware River, near Philadelphia.
1341. *Fundulus heteroclitus grandis* Baird and Girard.
Gulf coast of the United States.
Fundulus grandis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Indianola, Tex.
Fundulus floridensis Girard, loc. cit., XI, 1859, 157, Charlotte Bay, Fla.
Zygionectes funduloides Evermann, Bull. U. S. Fish Com., XI, 1891, 85, pl. 35, fig. 3, Dickinson Bayou, Dickinson, Tex.
1342. *Fundulus heteroclitus badius* Garman.
Gulf of St. Lawrence.
Fundulus heteroclitus badius Garman, Mem. Mus. Comp. Zool., XIX, 1895, Grand Manan.
1343. *Fundulus majalis* (Walbaum). *Killifish; Mayfish; Rockfish; Catfish; Bass killy.*
Cape Cod to Florida, chiefly marine in shallow bays.
Cobitis majalis Walbaum, Artedi Pisc., II, 1792, 12, Long Island; after Mayfish Schöpfung.
Esox flavulus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 439, New York.
Esox zonatus Mitchill, loc. cit., 443, New York.
Hydrargyra trifasciata Storer, Jour. Bost. Soc. Nat. Hist., I, 1837, 417, Massachusetts.
Hydrargyra vernalis Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 154 (206), pl. 531; probably South Carolina.
1344. *Fundulus ocellaris* Jordan and Gilbert.
Pensacola to Fort Myers, Fla.
Fundulus ocellaris Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 254, Pensacola, Fla.
1345. *Fundulus parvipinnis* Girard.
Coast of California from Point Conception southward to Lower California.
Fundulus parvipinnis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 154, San Diego, Calif.
1346. *Fundulus parvipinnis brevis* Osburn and Nichols.
Magdalena Bay, Lower California.
Fundulus parvipinnis brevis Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXV, 1916, 150, fig. 5, Magdalena Bay, Lower California.
1347. *Fundulus pallidus* Evermann.
Galveston Bay near Swan Lake, Tex.
Fundulus pallidus Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 84, pl. 35, Galveston Bay near Swan Lake, Tex.
1348. *Fundulus vinctus* Jordan and Gilbert.
Coast of Lower California.
Fundulus vinctus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 355, Cape San Lucas, Lower California.

1349. **Fundulus confluentus** Goode and Bean.
Streams of Florida.
Fundulus confluentus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 118, Lake Monroe, Fla.
1350. **Fundulus albolineatus** Gilbert.
Tennessee Basin in Alabama.
Fundulus albolineatus Gilbert, Bull. U. S. Fish Com., IX, 1889 (1891), 149, Spring Creek, Huntsville, Ala.
- Subgenus **GALASACEUS** Fowler.
1351. **Fundulus similis** (Baird and Girard). *Sac-à-lait*.
Coast of the Gulf States.
Hydrargyra similis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Indianola, Tex.
- Genus 444. **ZYGONECTES** Agassiz.
Zygionectes Agassiz, Amer. Jour. Sci. Arts, 1854, 135 (*Semotilus olivaceus* Raf.=*Semotilus notatus* Raf.).
1352. **Zygionectes notatus** (Rafinesque). *Top minnow*.
Michigan to Alabama, Mississippi, and Texas; generally abundant in ponds and canals.
Semotilus notatus Rafinesque, Ichth. Ohiensis, 1826, 86, tributaries of Ohio River in Kentucky; vaguely described but recognizable.
Pæcilia olivacea Storer, Proc. Bost. Soc. Nat. Hist., II, 1845 (1848), 51, Florence, Ala.
Fundulus tenellus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Prairie Mer Rouge, La., and Russellville, Ky.
Zygionectes lateralis Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, Mobile, Ala.
Zygionectes zonatus Agassiz, loc. cit., 353, St. Louis, Mo.
Zygionectes pulchellus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 113, Sugar Loaf Creek, Ark.
Fundulus aureus Cope, loc. cit., XVII, 1865, 78, Sugar Loaf Creek, Ark.
1353. **Zygionectes sciadicus** (Cope).
Middle Missouri River Basin; abundant in ponds and sluggish creeks in eastern Nebraska and southeastern South Dakota.
Fundulus sciadicus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 78, Platte River, Nebr.
Haplochilus floripinnis Cope, Proc. Amer. Phil. Soc., XIV, 1874, 138, Platte River, at Denver, Colo.
Zygionectes lineatus Garman, Bull. Mus. Comp. Zool., VIII, 1881, 88, northeastern Wyoming.
Zygionectes macdonaldi Meek, Bull. U. S. Fish Com., IX, 1889, 122, pl. 42, fig. 1, Jones Creek, Dixon, Mo., Osage fork of Gasconade River at Mansfield, Mo.
Fundulus scartes Meek, loc. cit., XV, 1895, 347, St. Francis River, Big Bay, Ark.
1354. **Zygionectes chrysotus** (Holbrook).
Coastwise swamps, South Carolina to Florida; rather common.
Fundulus chrysotus Holbrook, in Günther, Cat., VI, 1866, 317, Charleston, S. C.
Zygionectes henshalli Jordan, Proc. U. S. Nat. Mus., II, 1879, 237, San Sebastian River, Fla.
Gambusia arlingtonia Goode and Bean, loc. cit., 118, Arlington River, Fla.
1355. **Zygionectes cingulatus** (Cuvier and Valenciennes).
New Jersey to Florida, in coastwise swamps, not rare; Escambia River at Flomaton, Ala.
Fundulus cingulatus Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 147 (197), United States.
Zygionectes rubrifrons Jordan, Proc. U. S. Nat. Mus., II, 1879, 237, San Sebastian River, Fla.
Zygionectes auroguttatus Hay, loc. cit., VIII, 1885, 556, Westville, Fla.

1356. *Zygonectes dispar* Agassiz. *Top minnow*.
Northern Ohio to Illinois, south to Mississippi; Maumee, Wabash, Big Black and Pearl Rivers.
Zygonectes dispar Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, creeks opposite St. Louis; Beardstown, Ill.
1357. *Zygonectes nottii* Agassiz. *Star-headed minnow*; *Top minnow*.
Swamps and streams of Florida and neighboring States; not rare.
Zygonectes nottii Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, Mobile, Ala.
Zygonectes lineolatus Agassiz, loc. cit., 353, Augusta, Ga.
Zygonectes hieroglyphicus Agassiz, loc. cit., 353, Mobile, Ala.
Fundulus zonatus Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 146 (196), interior of South Carolina; not *Esox zonatus* Mitchill.
Zygonectes craticula Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 433, Elbow Creek, a tributary of Indian River, eastern Florida.
Zygonectes zonifer Jordan and Meek, loc. cit., VII, 1884, 482, Allapaha River, Nashville, Ga.
1358. *Zygonectes guttatus* Agassiz.
Alabama.
Zygonectes guttatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 353, Mobile, Ala.
Zygonectes escambiae Bollman, Proc. U. S. Nat. Mus., IX, 1886, 463, Escambia River, Flomaton, Ala.
1359. *Zygonectes luciae* (Baird).
Atlantic coast from Long Island to Virginia; rare.
Hydrargyra luciae Baird, Ninth Smithson. Rept., 1854, 344, Beesleys Point, N. J.
1360. *Zygonectes pulvereus* Evermann.
Coast of Texas.
Zygonectes pulvereus Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 85, Dickinson Bayou; Buffalo Bayou at Houston; Oso Creek at Corpus Christi, Tex.
1361. *Zygonectes jenkinsi* Evermann.
Coast of Texas.
Zygonectes jenkinsi Evermann, Bull. U. S. Fish Com., XI, 1891 (1892), 86, Dickinson Bayou, arm of Galveston Bay, Tex.
1362. *Zygonectes limi* (Vaillant).
Fundulus limi Vaillant, Bull. Soc. Philom. (8), VI, 1894, 71, Lower California.
Fundulus meeki Evermann, Proc. Biol. Soc. Wash., XXI, 1908 (Jan. 23), 25, fig. 1, San Ignacio, central Lower California.
1363. *Zygonectes melapleurus* (Gosse). *Ticky-ticky*.
Streams of Jamaica.
Pæcilia melapleura Gosse, Naturalists' Sojourn in Jamaica, 1851, 84, Jamaica.

Subgenus FONTICOLA Jordan and Evermann.

1364. *Zygonectes seminolis* (Girard).
Florida.
Fundulus seminolis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 60, Palatka, eastern Florida.

Subgenus MENONA Jordan and Evermann.

1365. *Zygonectes diaphanus* (LeSueur).
Maine to North Carolina in river mouths; New York to northern Illinois in lakes.
Hydrargyra diaphana LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 130, Saratoga Lake, N. Y.
Hydrargyra multifaciata LeSueur, loc. cit., 131, Saratoga Lake, N. Y.
1366. *Zygonectes diaphanus menona* (Jordan and Copeland).
Streams and lakes of Ohio to Iowa, Minnesota, and South Dakota.
Fundulus menona Jordan and Copeland, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 68, Cattish River, Dane County, Wis., outlet of Lake Menona, Madison, Wis.

Subgenus GAMBUSINUS Jordan and Evermann.

1367. *Zygionectes rathbuni* (Jordan and Meek).
 Eastern North Carolina, abundant in spring brooks, not descending to salt water.
Fundulus rathbuni Jordan and Meek, Proc. U. S. Nat. Mus., XI, 1888, 356, Reedy Fork, Allemanee Creek, Buffalo Creek, and other tributaries of the Cape Fear River, about Greensboro, N. C.

1368. *Zygionectes extensus* (Jordan and Gilbert).
 Coast of Lower California.
Fundulus extensus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 355, Cape San Lucas, Lower California.

Genus 445. XENISMA Jordan.

Xenisma Jordan, Bull. Buffalo Soc. Nat. Hist., 1876, 142 (*X. stellifera* Jordan).

1369. *Xenisma catenatum* (Storer). *Studfish*.
 Tennessee and Cumberland Rivers and clear streams of the Ozark Mountains.
Pæcilia catenata Storer, Synopsis, 1846, 430, Tennessee River, Florence, Ala.

1370. *Xenisma stellifer* Jordan. *Studfish*.
 Alabama River and tributaries.
Xenisma stellifera Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876, 322, Etowah and Oostanaula Rivers, Rome, Ga.

Genus 446. PLANCTERUS Garman.

Plancterus Garman, Mem. Mus. Comp. Zool., XIX, 1895, 96 (*Fundulus kansæ* Garman).

1371. *Plancterus zebra* (Girard).
 Kansas, western Iowa and South Dakota to Texas and New Mexico, in upper tributaries of Kansas and Red Rivers.
Hydrargyra zebra Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 61, tributaries of Rio Grande "between Fort Defiance and Fort Union, N. Mex.," name preoccupied in *Fundulus*.
Fundulus adinia Jordan and Gilbert, Synopsis, 1883, 335, Rio Grande at Brownsville, Tex.

1372. *Plancterus kansæ* (Garman).
 Kansas.
Fundulus kansæ Garman, Mem. Mus. Comp. Zool., XIX, 1895, 103, pl. 2, fig. 10, Kansas.
Fundulus zebrinus Jordan and Gilbert, Synopsis, 1882, 891; not of Girard.

Genus 447. OXYZYGONECTES Fowler.

Oxyzygonectes Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 425 (*Haplochilus dovii* Günther).

1373. *Oxyzygonectes balboæ* (Fowler).
 Panama; only one example known.
Fundulus balboæ Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 423, fig. 2, Panama.

1374. *Oxyzygonectes dovii* (Günther).
 Coast of Costa Rica.
Haplochilus dovii Günther, Cat., VI, 1866, 316, Punta Arenas, Costa Rica.

Genus 448. RIVULUS Poey.

Rivulus Poey, Memorias, II, 1861, 307, (*R. cylindraceus* Poey).

Cynodonichthys Meek, Field Col. Mus. Zool., V, 1904, 101 (*C. tenuis* Meek).

1375. *Rivulus cylindraceus* Poey.
 Cuba.
Rivulus cylindraceus Poey, Memorias, II, 1861, 308, stream at Mardazo, near Habana, Cuba.
Rivulus marmoratus Poey, Anal. Soc. Española Hist. Nat., IX, 1880, 248, Cuba.

1376. *Rivulus heyeyi* Nichols.
Haiti.
Rivulus heyeyi Nichols, Bull. Amer. Mus. Nat. Hist., XXXII, 1914, 143, Haiti.
1377. *Rivulus isthmensis* Garman.
Streams of Panama and Costa Rica.
Rivulus isthmensis Garman, Mem. Mus. Comp. Zool., XIX, 1895, 140, Rio San Jose, Costa Rica.
1378. *Rivulus brunneus* Meek and Hildebrand.
Panama.
Rivulus brunneus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 86, Toro Point, Canal Zone, Panama.
1379. *Rivulus flabellicauda* Regan.
Streams of Costa Rica.
Rivulus flabellicauda Regan, Ann. Mag. Nat. Hist., XIX, 1907, 64, Juan Vinas, Costa Rica.
1380. *Rivulus godmanni* Regan.
Rivulus godmanni Regan, Ann. Mag. Nat. Hist., 7th ser., XIX, 1907, 65, Guatemala.
1381. *Rivulus tenuis* (Meek).
Cynodontichthys tenuis Meek, Field Col. Mus., Zool., V, 1904, 101, El Hule, Oaxaca, Mexico.
1382. *Rivulus harti* (Boulenger). *Rainfish; Small quabin.*
Mountain streams of Trinidad and Granada in rain-water pools.
Haplochilus harti Boulenger, Proc. Zool. Soc. Lond., I, 1906, 389, Pl. XXI, fig. 2, Trinidad.
1383. *Rivulus chucunaque* Breder.
Tuyra Basin, Pacific slope of Panama.
Rivulus chucunaque Breder (C. M.), Amer. Mus. Novitates, No. CLXXX, July 6, 1925, fig. 6, Rio Chucunaque, near Yavisa, Darien, Panama.
Rivulus chucunaque sucubti Breder, loc. cit., 8, fig. 7, Rio Sucubti, Darien, Panama.
- Genus 449. *ADINIA* Girard.
Adinia Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 117 (*A. multifasciata* Girard).
1384. *Adinia multifasciata* Girard.
Gulf Coast, west Florida to Texas; locally abundant in shallow lagoons.
Adinia multifasciata Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118, Galveston; St. Joseph Island, Indianola, Tex.
Fundulus xenicus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 255, Laguna Grande, Pensacola, Fla.; substitute for *multifasciata*, preoccupied in *Fundulus* but not in *Adinia*.
- Genus 450. *FLORIDICHTHYS* Hubbs.
Floridichthys Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 16 (*Cyprinodon carpio* Günther).
1385. *Floridichthys carpio* (Günther).
Florida to Texas.
Cyprinodon carpio Günther, Cat., VI, 1866, 306, America.
Cyprinodon mydrus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 433, Pensacola, Fla.
- Genus 451. *JORDANELLA* Goode and Bean.
Jordanella Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 117 (*Jordanella floridæ* Goode and Bean).
1386. *Jordanella floridæ* Goode and Bean.
Streams from Florida to Yucatan.
Jordanella floridæ Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 117, Lake Monroe, Fla.
- Genus 452. *CYPRINODON* Lacépède.
Cyprinodon Lacépède, Hist. Nat. Poiss., V, 1803, 486 (*C. variegatus* Lacépède).
Prinodon Rafinesque, Anal. Nat., 1815, 88 (*Cyprinodon variegatus* Lacépède).
Encrotes Gistel, Thierreich, IX, 1848 (*Cyprinodon variegatus* Lacépède).
Trifarcius Poey, Memorias, II, 1861, 306 (*T. riverendi* Poey).

- 1387. *Cyprinodon variegatus* Lacépède.** Killifish; Pursy minnow; Sheeps-head minnow; Variegated minnow; Mummichog.
Cape Cod to Rio Grande, in bays, rarely entering streams.
Cyprinodon variegatus Lacépède, Hist. Nat. Poiss., V, 1803, 486, South Carolina.
Esox ovinus Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 441, New York.
Lebias ellipsoidea LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 6, Florida.
Lebias rhomboidalis Valenciennes, in Humboldt, Obs. Zool. Phil. Mag., II, 1810 (1811), 100, Lake Pontchartrain, La.
Cyprinodon gibbosus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Indianola, Tex.
- 1388. *Cyprinodon riverendi* (Poey).**
Cuba and Florida Keys; common at Key West in shallow shore waters.
Trifarcus riverendi Poey, Memorias, II, 1861, 306, Habana; scarcely distinct from *C. variegatus*.
- 1389. *Cyprinodon dearborni* Meek.**
Curaçao, Dutch West Indies.
Cyprinodon dearborni Meek, Field Mus. Nat. Hist., Zool., VII, 1909, 208, Willemstad, Curaçao, Dutch West Indies.
- 1390. *Cyprinodon felicianus* (Poey).**
Cuba.
Trifarcus felicianus Poey, Synopsis, 1867, 412, Habana, Cuba.
- 1391. *Cyprinodon latifasciatus* Garman.**
Parras, Coahuila, Mexico.
Cyprinodon latifasciatus Garman, Bull. Mus. Comp. Zool., VIII, 1881, No. 3, 92, Parras, Coahuila, Mexico.
- 1392. *Cyprinodon bovinus* Baird and Girard.**
Leon Spring in southwestern Texas.
Cyprinodon bovinus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Leon Spring, Tex.
- 1393. *Cyprinodon martæ* Steindachner.**
Santa Marta, coast of Colombia, South America.
Cyprinodon martæ Steindachner, Ichth. Beitr., IV, 1875, 61, Santa Marta, Rio Cauca.
- 1394. *Cyprinodon rubrofluviatilis* Fowler.**
Streams of Texas.
Cyprinodon bovinus rubrofluviatilis Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 430, fig. 4, Rio Brazos, Seymour, Tex., and Red River, Tulip and Clarendon, Tex.
- 1395. *Cyprinodon elegans* Baird and Girard.**
Tributaries of the Rio Grande.
Cyprinodon elegans Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Comanche Spring, Tex.
Cyprinodon eximius Girard, loc. cit., XI, 1859, 158, Chihuahua River, Mexico.
- 1396. *Cyprinodon macularius* Baird and Girard.**
Springs and streams of the desert, from southern Nevada to Sonora, locally abundant, often found in Artesian water and desert water holes in southwestern California.
Cyprinodon macularius Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 389, Rio San Pedro, Ariz.
Cyprinodon californiensis Girard, loc. cit., XI, 1859, 158, San Diego County, Calif., probably from Salt Springs in the desert (now Imperial County).
Lucania browni Jordan and Richardson, Proc. U. S. Nat. Mus., XXXIII, 1908, 319, hot spring in southeastern California.
- 1397. *Cyprinodon nevadensis* Eigenmann.**
Death Valley.
Cyprinodon nevadensis Eigenmann, Proc. Calif. Acad. Sci., I, 1889, 270, Saratoga Springs, Death Valley, Inyo County, Calif.

1398. *Cyprinodon baileyi* Gilbert.

Pahrnagat Valley, Nev.

Cyprinodon macularius baileyi Gilbert, Death Valley Exped., 1893, 233, Pahrnagat Valley, Nev.

Family 114. EMPETRICHTHYIDÆ

Genus 453. EMPETRICHTHYS³⁴ Gilbert.*Empetrichthys* Gilbert, Death Valley Exped., Fishes, 1893, 233 (*E. merriami* Gilbert).1399. *Empetrichthys merriami* Gilbert.

Death Valley in southeastern California.

Empetrichthys merriami Gilbert, Death Valley Exped., in North American Fauna, No. 7, May 31, 1893, 234, Ash Meadows, Amargosa Desert, on boundary between California and Nevada.

Family 115. GOODEIDÆ

Genus 454. ZOOGONETICUS Meek.

Zoogoneticus Meek, Field Col. Mus., Zool., III, 1902, 91 (*Z. diazi* Meek).1400. *Zoogoneticus dugesii* (Bean).

Guanajuato, Mexico.

Fundulus dugesii Bean, Proc. U. S. Nat. Mus., X, 1887, 373, pl. 20, Guanajuato, Mexico.1401. *Zoogoneticus diazi* Meek.

Lakes of Michoacan, Mexico.

Zoogoneticus diazi Meek, Field Col. Mus., Zool., III, 1902, 93, figured in Field Col. Mus., Zool., V, 1904, 114, fig. 32, Lake Patzcuaro, Mexico.*Zoogoneticus miniatus* Meek, Field Mus. Nat. Hist., Zool., V, 1914, 115, fig. 33, Lake Zirahuén, Mexico.1402. *Zoogoneticus robustus* (Bean).

Rio Lerma, Guanajuato.

Fundulus robustus Bean, Proc. U. S. Nat. Mus., XV, 1892, 285, pl. 44, fig. 2, Guanajuato, Mexico.*Zoogoneticus maculatus* Regan, Ann. Mag. Nat. Hist. (7), XIII, 1904, 256, Rio Santiago (Lerma), Mexico.1403. *Zoogoneticus quitzeoensis* (Bean).

Rio Lerma, Mexico.

Platypæcilus quitzeoensis Bean, Proc. U. S. Nat. Mus., XXI, 1899 (Nov. 21, 1898), 540, fig. 1, Lake Quitzeo, Lerma Basin.

Genus 455. GIRARDINICHTHYS Bleeker.

Girardinichthys Bleeker, Act. Soc. Sci. Indo-Nederl., VII, 1860, 481 (*G. innominatus* Bleeker, after a "*Lucania* sp." of Girard).*Limnurgus* Günther, Cat., VI, 1866, 309 (*L. variegatus* Günther = *Girardinichthys* Bleeker).1404. *Girardinichthys innominatus* Bleeker.

Valley of Mexico.

Lucania sp., Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 118, City of Mexico.*Girardinichthys innominatus* Bleeker, Act. Soc. Sci. Indo-Nederl., VII, 1860, 481, City of Mexico.*Limnurgus variegatus* Günther, Cat., VI, 1866, 309, City of Mexico.*Characodon geddesi* Regan, Ann. Mag. Nat. Hist., (7), XIII, 1904, 257, Xochomilco, Morelos, Mexico.

Genus 456. CHARACODON Günther.

Characodon Günther, Cat., VI, 1866, 308 (*C. lateralis* Günther).³⁴ This genus apparently a desert derivative of the extinct genus, *Parafundulus*, has probably no affinity with *Orestias* of Peru.

- 1405. *Characodon variatus* Bean.**
Tributaries of Rio Lerma about Guanajuato, Mexico; locally common.
Characodon variatus Bean, Proc. U. S. Nat. Mus., X, 1887, 370, pl. 20, fig. 1, Guanajuato, Mexico.
Characodon ferrugineus Bean, loc. cit., 372, pl. 20, figs. 3 and 4, Guanajuato, Mexico.
Characodon eiseni Rutter, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 266, branch of the Rio Grande de Santiago at Tepic, Mexico.
- 1406. *Characodon lateralis* Günther.**
Streams of Central America.
Characodon lateralis Günther, Cat., VI, 1866, 308, Central America.
- 1407. *Characodon garmani* Jordan and Evermann.**
Tributaries of Rio Grande in Coahuila, Mexico.
Characodon garmani Jordan and Evermann, Fish. North and Mid. Amer., III, 1898, 2831, Parras, Coahuila, Mexico.
- 1408. *Characodon fuscus* Jordan and Gilbert.**
Cape San Lucas southward to Colima, Mexico.
Characodon fuscus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 354, Cape San Lucas, Lower California.
- Genus 457. *LERMICHTHYS* Hubbs.**
Lermichthys Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 18 (*Characodon multiradiatus* Meek).
- 1409. *Lermichthys multiradiatus* (Meek).**
Rio Lerma Basin, Mexico.
Characodon multiradiatus Meek, Field Col. Mus., Zool., V, 1904, 119, Rio Lerma, Mexico.
Girardinichthys limnurgus Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 502, Lake Lerma, Mexico.
- Genus 458. *BALSADICHTHYS* Hubbs.**
Balsadichthys Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 16, July 9, 1926, 19 (*Goodea whitei* Meek).
- 1410. *Balsadichthys whitei* (Meek).**
Rio de las Balsas Basin, Mexico.
Goodea whitei Meek, Field Col. Mus., Zool., V, 1904, 137, fig. 40, Rio Balsas, Yantepec, Cuantla, Mexico.
- Genus 459. *SKIFFIA* Meek.**
Skiffia Meek, Field Col. Mus., Zool., III, 1902, 102 (*S. lermæ* Meek).
- 1411. *Skiffia variegata* Meek.**
Lake Zirahuen, Mexico.
Skiffia variegata Meek, Field Col. Mus., Zool., V, 1904, 143, Lake Zirahuen, Mexico.
- 1412. *Skiffia lermæ* Meek.**
Skiffia lermæ Meek, Field Col. Mus., Zool., III, 1902, 102, Lake Patzcuaro (Rio Lerma), Mexico.
- 1413. *Skiffia bilineata* (Bean).**
Rio Lerma, Guanajuato, Mexico.
Characodon bilineatus Bean, Proc. U. S. Nat. Mus., X, 1887, 371, Guanajuato, Rio Lerma, Mexico.
- 1414. *Skiffia multipunctata* (Pellegrin).**
Rio Lerma system; Lake Chapala, Mexico.
Xenendum multipunctatum Pellegrin, Bull. Mus. Hist. Nat., Paris, 1901, 205, Jalisco, Mexico.
- Genus 460. *GOODEA* Jordan.**
Goodea Jordan, Proc. U. S. Nat. Mus., II, 1879, 299 (*G. atripinnis* Jordan).
Xenendum Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 128, fig. 9 (1906) (*X. zulacicon* = *Characodon luitpoldi* Steindachner).
- 1415. *Goodea atripinnis* Jordan.**
Tributaries of Rio Lerma, Pacific slope, Mexico.
Goodea atripinnis Jordan, Proc. U. S. Nat. Mus., II, 1879, 299, Leon, Guanajuato, Mexico.

1416. **Goodea calientis** (Jordan and Snyder).
Streams of central Mexico.
Xenendum caliente Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 127, fig. 8, Aguas Calientes, Mexico.
1417. **Goodea luitpoldi** (Steindachner).
Basin of Río Lerma, Mexico.
Characodon luitpoldi Steindachner, Einige Fischarten Mexicos, 1895, 12, pl. 3, figs. 3-36, Lago de Patzcuaro, Michoacan, Mexico.
Xenendum xaliscone Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 128, fig. 9, Laguna de Chapala, near Ocotlan, Jalisco, Mexico.
1418. **Goodea toweri** Meek.
Río Panuco, San Luis Potosi, Mexico.
Goodea toweri Meek, Field Col. Mus., Zool., V, 1904, 138, fig. 41, Río Verde, San Luis Potosi, Mexico.
1419. **Goodea captiva** Hubbs.
Panuco Basin, Mexico.
Goodea captiva Hubbs, Occ. Papers, Mus. Zool., Univ. Mich., No. 148, 1924, 4; upper tributary of the Río Panuco at Jesus Maria, Mexico.

Family 116. PÆCILIIDÆ. Top minnows

- Genus 461. **BELONESOX** Kner.
Belonesox Kner, Sitzungsber., Kais. Akad. Wiss. Wien, 1860, XL, 419 (*B. belizanus* Kner).
1420. **Belonesox belizanus** Kner.
Southern Mexico, Honduras, and Guatemala.
Belonesox belizanus Kner, Sitzungsber., Kais. Akad. Wiss. Wien, XL, 1860, 419, with figure, Belize; largest of the Pæciliidæ.
- Genus 462. **CHAPALICHTHYS** Meek.
Chapalichthys Meek, Field Col. Mus., Zool., III, 1902, 97 (*Characodon encaustus* Jordan and Snyder).
1421. **Chapalichthys encaustus** (Jordan and Snyder).
Lake Chapala, Mexico.
Characodon encaustus Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1901), 126, Laguna de Chapala, near Ocotlan, Jalisco, Mexico.
- Genus 463. **HETEROPHALLUS** Regan.
Heterophallus Regan, Ann. Mag. Nat. Hist., (8), XV, 1914, 66 (*H. rachovii* Regan).
1422. **Heterophallus rachovii** Regan.
Streams of eastern Mexico.
Heterophallus rachovii Regan, Ann. Mag. Nat. Hist., (8), XV, 1914, 66, Fig. A, Vera Cruz, Mexico.
- Genus 464. **GAMBUSIA** Poey. *Guajacones*.
Gambusia Poey, Memorias, I, 1854, 382 (*G. punctata* Poey).
Hemixiphophorus Bleeker, Nat. Tijdschr. Neder.-Indie, XX, 1854, 440; type not named.
Paragambusia Meek, Field Col. Mus., Zool., V, 1904, 133 (*Gambusia nicaraguensis* Günther).
Heterophallina Hubbs (subgenus), Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926 (*Gambusia regani* Hubbs).
Arthrophallus Hubbs (subgenus), loc. cit., 38 (*Heterandria patruelis* Baird and Girard).
Schizophallus Hubbs (subgenus), loc. cit., 40 (*Gambusia holbrookii* Girard).

1423. *Gambusia patruelis* (Baird and Girard). *Top minnow; Mosquitofish.*
Ditches, marshes, and lagoons, South Atlantic and Gulf States, lowland streams of the southwest; lower Mississippi from St. Louis to Louisiana and the Rio Grande. Introduced from Galveston into Hawaii, California, Formosa, Luzon, etc., a very effective mosquito killer.
Heterandria patruelis Baird and Girard, Proc., Acad. Nat. Sci. Phila., VI, 1853, 390, Rio Sabinal, Rio Nueces, and Elm Creek, Tex.
Heterandria affinis Baird and Girard, loc. cit., 390, Rio Medina and Rio Salado, Tex.
? *Gambusia speciosa* Girard, loc. cit., 1859, 121, Rio San Diego, Nuevo Leon, Mexico.
? *Gambusia gracilis* Girard, loc. cit., 1859, 121, Matamoros, Mexico; name preoccupied.
Gambusia humilis Günther, Cat., VI, 1866, 334; substitute for *gracilis*.
Haplochilus melanops Cope, Proc. Amer. Phil. Soc., 1870, 457, Neuse River, N. C.
Zygionectes (Micristius) brachypterus Cope, Bull., U. S. Nat. Mus., XX, 1880, 34, Trinity River, Fort Worth, Tex.
Zygionectes inurus Jordan, Proc., U. S. Nat. Mus., 1882, 143, Cache Creek, southern Illinois.
Gambusia modesta Ahl, Blätter für Aquarium- und Terrariakunde, XXXVI, 1923, 220.
Gambusia myersi Ahl, loc. cit., 1925, 36, with figure (substitute for *modesta* preoccupied).
1424. *Gambusia holbrooki* (Girard). *Holbrook's top minnow.*
New Jersey to Florida and Alabama.
Heterandria holbrooki Agassiz, in Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 61, Charleston, S. C.
Haplochilus melanops Cope, Proc. Amer. Phil. Soc., XI, 1870, 457, Neuse River, N. C.
Zygionectes atrilatus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 84, Neuse River, Goldsboro, N. C.
1425. *Gambusia nobilis* (Baird and Girard).
Heterandria nobilis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Leona and Comanche Spring, Rio Grande, Tex.
1426. *Gambusia senilis* Girard.
Rio Grande Basin.
Gambusia senilis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 122, Chihuahua, Mexico.
- Subgenus **HEMIXIPHOPHORUS** Bleeker.
1427. *Gambusia gracilis* (Heckel).
Lowland streams of eastern Mexico.
Xiphophorus gracilis Heckel, Sitzungsber. Kais. Akad. Wiss. Wien, I, 1848, 300, taf. 9, figs. 3 and 4, Orizaba, Mexico.
Gambusia heckeli Bleeker, Fam. Cypr., 1860, 485.
- Subgenus **GAMBUSIA** Poey.
1428. *Gambusia punctata* Poey. *Guajacon.*
Cuba.
Gambusia punctata Poey, Memorias, I, 1854, 384, Rio Almendares, Cuba.
Gambusia picturata Poey, Repertorio, 1868, 410, San Diego de los Baños, Cuba.
Gambusia punctata punctulata Garman, Mem. Mus. Comp. Zool., XIX, 1895, 87, Remedios, Cuba.
1429. *Gambusia puncticulata* Poey.
Streams of Cuba.
Gambusia puncticulata Poey, Memorias, I, 1854, 386, Cuba.
1430. *Gambusia melapleura* (Gosse). *Ticky-ticky.*
Streams of Jamaica; locally common.
Pacilia melapleura Gosse, Naturalist's Sojourn in Jamaica, 1851, 84, Jamaica.

1431. *Gambusia nicaraguensis* Günther.
Southern Mexico and Central America.
Gambusia nicaraguensis Günther, Cat., VI, 1866, 366, Lake of Nicaragua.
Gambusia dovii Regan, Proc. Zool. Soc. Lond., 1913, 986, Lake Nicaragua.
Gambusia yucatanana Regan, Ann. Mag. Nat. Hist., 8th ser., XIV, 1914, 67, Progreso, Yucatan.
1432. *Gambusia mcnieli* Fowler.
Panama.
Gambusia mcnieli Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 433, Panama.
1433. *Gambusia wrayi* Regan.
Jamaica.
Gambusia wrayi Regan, Proc. Zool. Soc. Lond., 1913, 988, Pl. XCIX, figs. 3, 4 and text fig. 168B, Jamaica.
1434. *Gambusia caymanensis* Regan.
West Indies.
Gambusia caymanensis Regan, Proc. Zool. Soc. Lond., 1913, 990, Grand Cayman, West Indies.
1435. *Gambusia gracilior* Regan.
Jamaica.
Gambusia gracilior Regan, Proc. Zool. Soc. Lond., 1913, 989, Pl. XCIX, figs. 5, 6, and text fig. 168C, Jamaica.
1436. *Gambusia dominicensis* Regan.
Haiti.
Gambusia dominicensis Regan, Proc. Zool. Soc. Lond., 1913, 989, Pl. XCIX, fig. 7 and text fig. 169C, San Domingo.
1437. *Gambusia oligosticta* Regan.
Jamaica.
Gambusia oligosticta Regan, Proc. Zool. Soc. Lond., 1913, 988, Pl. XCIX, figs. 1, 2, and text fig. 169B, Jamaica.
1438. *Gambusia manni* Hubbs.
Bahamas.
Gambusia manni Hubbs, Copeia, 1927, 62, New Providence, one of the Bahamas.
- Subgenus **HETEROPHALLINA** Hubbs.
1439. *Gambusia regani* Hubbs.
Rio Panuco, northwestern Mexico.
Gambusia regani Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 16, July 9, 1926, 28, Forlon, Tamaulipas, Mexico, in the River Forlon.
1440. *Gambusia vittata* Hubbs.
Santa Engracia, Tamaulipas, Mexico.
Gambusia vittata Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 26, Rio Forlon, at Forlon, Tamaulipas, Mexico.
1441. *Gambusia panuco* Hubbs.
Rio Panuco, Mexico.
Gambusia panuco Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 30, Rio Valles, at Valles, San Luis Potosi, Mexico.
- Genus 465. **BRACHYRHAPHIS** Regan.
Brachyrhaphis Regan, Proc. Zool. Soc. Lond., 1913, 997 (*Gambusia rhabdophora* Regan).
1442. *Brachyrhaphis terrabensis* (Regan).
Pacific streams of Costa Rica.
Gambusia terrabensis Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 260, Rio Grande de Terraba, Costa Rica.
1443. *Brachyrhaphis rhabdophora* (Regan).
Costa Rica.
Gambusia rhabdophora Regan, Ann. Mag. Nat. Hist., (8), II, 1908, 457
Volcano of Tenorio and Rio Grande de Terraba, Costa Rica.

1444. *Brachyrhaphis olomina* (Meek).
Valley of the Rio Grande de Tarcoles, Costa Rica.
Priapichthys olomina Meek, Field Mus. Nat. Hist., Zool., X, 1912, 114,
Las Cañas, Alajuela, Costa Rica.
1445. *Brachyrhaphis episcopi* (Steindachner).
Isthmus of Panama at Obispo station, and streams of the Pacific slope
of Panama.
Gambusia episcopi Steindachner, Ichth. Beitr., VI, 1878, 9, Obispo near
Panama.
Gambusia latipunctata Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1913, 87, Arrijan, Panama.
1446. *Brachyrhaphis cascajalensis* (Meek and Hildebrand).
Streams of Atlantic slope of Panama.
Gambusia cascajalensis Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1913, 86, Rio Cascajal, Panama.
1447. *Brachyrhaphis parismina* (Meek).
Costa Rica.
Gambusia parismina Meek, Field Mus. Nat. Hist., Zool., X, 1912, 71,
Costa Rica.
- Genus 466. *TRIGONOPHALLUS* Hubbs.
Trigonophallus Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16,
July 9, 1926, 48 (*T. punctifer* Hubbs).
1448. *Trigonophallus punctifer* Hubbs.
Streams of Pacific coast of Panama.
Trigonophallus punctifer Hubbs, Univ. Mich. Mus. Zool. Misc. Pub.
No. 16, July 9, 1926, 49, Quibari Creek, Rio Secamola at Kakintin.
- Genus 467. *PRIAPICHTHYS* Regan.
Priapichthys Regan, Proc. Zool. Soc. Lond., 1913, 991 (*Gambusia*
annectans Regan).
1449. *Priapichthys annectens* (Regan).
Streams of Atlantic slope of Costa Rica.
Gambusia annectens Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907,
250, Costa Rica.
1450. *Priapichthys annectens hesperis* Hubbs.
Streams of the Pacific slope of Costa Rica.
Priapichthys annectens hesperis Hubbs, Univ. Mich. Mus. Zool. Misc.
Pub. No. 13, Jan. 18, 1924, 22, Rio Maria Aquilar, Rio Grande de
Tancoles, and their mountain tributaries.
1451. *Priapichthys huberi* Fowler.
Nicaragua.
Priapichthys huberi Fowler, Proc. Acad. Nat. Sci. Phila., LXXV, 1923,
27, Marcelego Creek, tributary of the Tunky River, at Miranda,
Nicaragua.
- Genus 468. *PANAMICHTHYS* Hubbs.
Panamichthys Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 13,
Jan. 18, 1924, 8 (*Priapichthys panamensis* Meek and Hildebrand).
1452. *Panamichthys panamensis* (Meek and Hildebrand).
Priapichthys panamensis Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1916, 322, Panama.
- Genus 469. *PSEUDOXIPHOPHORUS* Bleeker.
Pseudoxiphophorus Bleeker, Ichth. Indice Prodr. Cypr., in Acata Societ.
Scient. Indo-Neer., VII, 1859, 483 (*Xiphophorus bimaculatus* Heckel).
Pacilodes Steindachner, Sitzungsber. Kais. Akad. Wiss. Wien, XLVIII,
1863, 176 (*P. bimaculatus* Steindachner).
1453. *Pseudoxiphophorus bimaculatus* (Heckel).
Central Mexico; Rio Blanco, Orizaba.
Xiphophorus bimaculatus Heckel, Sitzungsber. Kais. Akad. Wiss. Wien,
I, 1848, pt. 3, 169, taf. 6, figs. 1 and 2, Mexico.
Pseudoxiphophorus reticulatus Troschel, in Miller's Reisen Vereinigten
Staaten, Canada, Mexico, III, 1865, 638, no locality.

1454. *Pseudoxiphophorus bimaculatus tæniatus* Regan.
Streams of the Atlantic slope of southeastern Mexico.
Pseudoxiphophorus bimaculatus tæniatus Regan, Ann. Mag. Nat. Hist., (7), XVI, 1905, 303, Rio Touto and San Domingo de Guzman.
1455. *Pseudoxiphophorus bimaculatus jonesi* (Günther).
Streams of southeastern Mexico.
Mollienisia jonesi Günther, Ann. Mag. Nat. Hist., (4), XIV, 1874, 371,
Lake Alcuahuaca, Huamanita, Mexico.
Pseudoxiphophorus pauciradiatus Regan, Ann. Mag. Nat. Hist., (7),
X, 1904, 14, 296, Orizaba, Mexico.
- Genus 470. **HETERANDRIA** Agassiz.
Heterandria Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135 (*H. formosus*
Agassiz MS.; *H. holbrooki* Agassiz MS.).
1456. *Heterandria formosa* Agassiz.
Streams of South Carolina to Florida; one of the smallest of fishes.
Heterandria formosa Agassiz, in Girard, Proc. Acad. Nat. Sci. Phila.,
XI, 1859, 62, Charleston, S. C.; Palatka, Fla.
- Genus 471. **PRIAPELLA** Regan.
Priapella Regan, Proc. Zool. Soc. Lond., 1913, 992 (*Gambusia bonita*
Meek).
1457. *Priapella bonita* (Meek).
Streams of western Mexico; Rio Papaloapam, Motzorongo.
Gambusia bonita Meek, Field Col. Mus., Zool., V, 1904, 132, fig. 39,
104, Refugio, Vera Cruz, Mexico.
- Genus 472. **ALLOGAMBUSIA** Hubbs.
Allogambusia Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 13, Jan.
18, 1924, 8 (*Gambusia tridentiger* Garman).
1458. *Allogambusia cana* (Meek and Hildebrand).
Streams of the Pacific slope of Panama.
Gambusia cana Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X,
1913, 87, Rio Satiganti, Cana, Panama.
1459. *Allogambusia tridentiger* (Garman).
Rivers of Panama.
Gambusia tridentiger Garman, Mem. Mus. Comp. Zool., XIX, 1895, 89
(Pl. IV, fig. 10, teeth), rivers of Panama.
- Genus 473. **TOXUS** Eigenmann.
Toxus Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903), 226 (*T.*
riddlei Eigenmann).
1460. *Toxus riddlei* Eigenmann.
Streams of western Cuba.
Toxus riddlei Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903),
226, San Cristobal, Cuba.
1461. *Toxus cubensis* (Eigenmann).
Streams of western Cuba.
Heterandria cubensis Eigenmann, Bull. U. S. Fish Com., XXII, 1902
(1903), 227, Los Palacios, Cuba.
- Genus 474. **GLARIDICHTHYS** Garman.
Glaridodon Garman, Mem. Mus. Comp. Zool., XIX, 1895, 40 (*latidens*);
name preoccupied.
Glaridichthys Garman, Amer. Nat., XXX, 1896, 232 (same type).
1462. *Glaridichthys uninotatus* (Poey).
Cuba.
Girardinus uninotatus Poey, Memorias, II, 1861, 309, Cuba.
1463. *Glaridichthys torralbasi* Eigenmann.
Streams of Pinar del Rio, Cuba.
Glaridichthys torralbasi Eigenmann, Bull. U. S. Fish Com., XXII, 1902
(1903), 225, fig. 4, Pinar del Rio, Cuba.
1464. *Glaridichthys falcatus* Eigenmann.
Streams of western Cuba.
Glaridichthys falcatus Eigenmann, Bull. U. S. Fish Com., XXII, 1902
(1903), 224, San Cristobal, Palacios, Pinar del Rio, Cuba.

Genus 475. GIRARDINUS Poey.*Girardinus* Poey, Memorias, I, 1854, 383 (*G. metallicus* Poey).**1465. *Girardinus metallicus* Poey.**

Streams of Cuba.

Girardinus metallicus Poey, Memorias, I, 1854, 387, Cuba.*Girardinus denticulatus* Garman, Mem. Mus. Comp. Zool., XIX, 1895, 47, Remedios, Cuba.*Girardinus creolus* Garman, loc. cit., 47, Cuba.*Girardinus garmani* Eigenmann, Bull. U. S. Fish Com., XXII, 1902 (1903), 296, Pinar del Rio, Palacios, Cuba.**Genus 476. DARIENICHTHYS Hubbs.***Darienichthys* Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 13, Jan. 18, 1924, 8 (*Gambusia darienensis* Meek and Hildebrand).**1466. *Darienichthys darienensis* (Meek and Hildebrand).**

Streams of Pacific slope, Panama.

Gambusia darienensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 116, 88, Rio Capeti (Tuyra River Basin), Panama.**Genus 477. PÆCILIOPSIS Regan.***Pæciliopsis* Regan, Proc. Zool. Soc. Lond., 1913, 996 (*Pæcilia presidionis* Jordan and Culver).*Leptorhaphis* Regan, loc. cit., 980, 998 (*Gambusia infans* Woolman).**1467. *Pæciliopsis occidentalis* (Baird and Girard).**

Gila Basin, Ariz., and basins of Yaqui and Sonora Rivers, Sonora.

Heterandria occidentalis Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Rio Santa Cruz, near Tucson, Ariz.*Girardinus sonoriensis* Girard, loc. cit., XI, 1859, 120, San Bernardino Creek, a tributary of the Rio Yaqui, Sonora.**1468. *Pæciliopsis infans* (Woolman).**

Rio Lerma, Salamanca, Mexico.

Gambusia infans Woolman, Bull. U. S. Fish Com., XIV, 1894, 62, Rio Lerma, Salamanca, Mexico.**1469. *Pæciliopsis balsas* Hubbs.**

Balsas Basin, Mexico.

Pæciliopsis balsas Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 66, Rio Balsas, Guerrero, Mexico.**1470. *Pæciliopsis latidens* (Garman).**

Chihuahua.

Glaridodon latidens Garman, Mem. Mus. Comp. Zool., XIX, 1895, 40, Chihuahua, Mexico.**1471. *Pæciliopsis fasciata* (Meek).**

Atlantic streams of southern Mexico.

Gambusia fasciata Meek, Field Col. Mus., Zool., V, 1904, 129, fig. 37, San Geronimo, Oaxaca, Mexico.**1472. *Pæciliopsis turrubarensis* (Meek).**

Costa Rica.

Gambusia turrubarensis Meek, Field Mus. Nat. Hist., Zool., X, 1912, 71, Rio Turrubara, Costa Rica.*Heterandria colombianus* Eigenmann and Henn, Indiana Univ. Stud., No. 8, 1912, 27, brackish water, mouth of Rio Dagua, Colombia.*Priapichthys fosteri* Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 260, figs. 14 and 15, Rio Lempa, San Marcos, El Salvador, Central America.**1473. *Pæciliopsis presidionis* (Jordan and Culver).**

Rio Presidio, Sinaloa, Mexico.

Pæcilia presidionis Jordan and Culver, in Jordan, Fishes of Sinaloa, Proc., Calif. Acad. Sci., V, 1895, 413, pl. 29, Rio Presidio, Sinaloa, Mexico.**Genus 478. PÆCILISTES Hubbs.***Pæcilistes* Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 68 (*Heterandria lutzi* Meek).

1474. *Pæcilistes pleurospilus* (Günther).

Streams of Guatemala.

Girardinus pleurospilus Günther, Cat., VI, 1866, 353, Lake Dueñas, Guatemala.*Heterandria lutzi* Meek, Field Col. Mus., Zool., V, 1904, 148, fig. 47, Orizaba, Mexico.*Priapichthys letonai* Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 258, Rio San Miguel, San Salvador.Genus 479. *AULOPHALLUS* Hubbs.*Aulophallus* Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. No. 16, July 9, 1926, 69 (*Pæcilia elongata* Günther).1475. *Aulophallus elongatus* (Günther).Panama, a large marine species quite unlike *Pæcilia* in habits.*Pæcilia elongata* Günther, Cat., VI, 1866, 342, Panama.Genus 480. *PHALLICHTHYS* Hubbs.*Phallichthys* Hubbs, Univ. Mich. Mus. Zool. Misc. Pub. 13, Jan. 18, 1924, 10, (*Pæciliopsis isthmensis* Regan).1476. *Phallichthys amates* (Miller).

Motagua Basin, Guatemala.

Pæcilia amates Miller, Bull. Amer. Mus. Nat. Hist., XXIII, 1907, 108, fig. 1, pond and its outlet, Los Amates, an affluent of the Motagua River, Guatemala.1477. *Phallichthys pittieri* (Meek).

Costa Rica.

Pæcilia pittieri Meek, Field Mus. Nat. Hist., Zool., X, 1912, 71, La Junta, Costa Rica.*Pæciliopsis isthmensis* Regan, Proc., Zool. Soc. Lond., 1913, 997, Pl. C, figs. 3, 4, and text fig. 171B, Colon, Panama.Genus 481. *XENOPHALLUS* Hubbs.*Xenophallus* Hubbs, Mus. Zool. Univ. Mich. Misc. Pub. 13, Jan. 18, 1924, 10 (*Gambusia umbratilis* Meek.)1478. *Xenophallus umbratilis* (Meek).

Streams of Costa Rica.

Gambusia umbratilis Meek, Field Mus. Nat. Hist., Zool., X, 1912, 70, Costa Rica.Genus 482. *PÆCILIA* Schneider.*Pæcilia* Schneider, ed. Bloch, Syst. Ichth. 1801, 452 (*P. vivipara* Bloch and Schneider); not *Pæcilus* of genus of beetles.*Alazon* Gistel, Thierreich, X, 1848 (*Pæcilia vivipara* Schneider); substitute for *Pæcilia*, regarded as preoccupied.*Acropæcilia* Hilgendorf, Sitzungsber. Naturf. Freunde, 1889, 52 (*Pæcilia tridens* Hilgendorf).*Neopæcilia* Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. 13, 1924 (*N. holacanthus* Hubbs).1479. *Pæcilia vivipara* Bloch and Schneider.

Rivers of Brazil; Guiana; Martinique; Porto Rico.

Pæcilia vivipara Bloch and Schneider, Syst. Ichth., 1801, 452, pl. 86, fig. 2, Surinam.*Pæcilia surinamensis* Valenciennes, Humboldt, Observ. Zool., II, 1817, 158, pl. 51, fig. 1, Surinam.*Pæcilia schneideri* Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 102 (135), Surinam.*Neopæcilia holacanthus* Hubbs, Univ. Mich. Mus. Zool., Misc. Pub. No. 13, Jan. 18, 1924, 11, based on material recorded as *Pæcilia vivipara* Evermann and Marsh, Bull., U. S. Fish Com., XX, 1900, first part (1902), 97, from Porto Rico (Ponce, Fijaro, Arroyo, and Hucares).1480. *Pæcilia tridens* Hilgendorf.

Streams of Haiti.

Pæcilia (*Acropæcilia*) *tridens* Hilgendorf, Sitzungsber. Naturf. Freunde, 1889, 52, Port au Prince.

Genus 483. LIMIA Poey.

Limia Poey, Memorias, I, 1854, 388 (*L. cubensis* Poey = *Pæcilia vittata* Guichenot).

1481. *Limia heterandria* Regan.

Santo Domingo.

Limia heterandria Regan, Proc. Zool. Soc. Lond., 1913, 1017, Pl. CI, "Venezuela"; locality probably wrong.

Heterandria zonata Nichols, Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, 603, fig. 3, Santo Domingo.

1482. *Limia vittata* (Guichenot). *Faguito*; *Guajica*.

Streams of Cuba.

Pæcilia vittata Guichenot, in Ramon de la Sagra, Hist. Nat. Cuba, Poiss., 1853, 146, pl. 5, fig. 1, Cuba.

Limia cubensis Poey, Memorias, I, 1854, 388, Habana.

Limia pavonina Poey, Enumeratio, 1876, 142, Habana.

1483. *Limia perugiæ* (Evermann and Clark).

Santo Domingo.

Platypæcilus perugiæ Evermann and Clark, Proc. U. S. Nat. Mus., XXX, 1906, 851, Santo Domingo.

1484. *Limia caudofasciata* Regan.

Jamaica.

Limia caudofasciata Regan, Proc., Zool. Soc. Lond., 1913, 1017, Jamaica.

1485. *Limia nigrofasciata* Regan.

Limia nigrofasciata Regan, Proc., Zool. Soc. Lond., 1913, 1015, Pl. CI, figs. 1, 2, 1913, Haiti.

Limia arnoldi Regan, loc. cit., 1016, Miragoâne, Haiti; young of *nigrofasciata*.

1486. *Limia ornata* Regan.

Limia ornata Regan, Proc. Zool. Soc. Lond., 1913, 1016, Haiti.

1487. *Limia dominicensis* (Cuvier and Valenciennes).

Santo Domingo and Barbados.

Pæcilia dominicensis Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 99 (131), pl. 525, Santo Domingo.

Pæcilia melanogaster Günther, Cat., VI, 1866, 345, locality unknown.

Platypæcilus dominicensis Evermann and Clark, Proc. U. S. Nat. Mus., XXX, 1906, 852, fig. 2, streams in San Francisco Mountains, Santo Domingo.

1488. *Limia melanonotata* Nichols and Myers.

Santo Domingo.

Limia melanonotata Nichols and Myers, Amer. Mus. Novitates, No. 79, 1923, 1, Hispaniola.

1489. *Limia versicolor* (Günther).

Rivers of Haiti.

Girardinus versicolor Günther, Cat., VI, 1866, 352, Santo Domingo.

Genus 484. LEBISTES De Filippi

Lebistes de Filippi, Arch. Zool. Anat. Fisiol., I, 1862, 69 (*L. pæciloides* de Filippi).

Acanthophaelus Eigenmann, Proc. U. S. Nat. Mus., XXXII, 1907, 426 (*Pæcilia reticulatus* Peters).

1490. *Lebistes reticulatus* (Peters). *Millions*; *Bellyfish*; *Guppy* and *rainbow-fish* of aquarists.

Pools and streams of Barbados, Trinidad, and Venezuela.

Pæcilia reticulata Peters, Monatsber. Akad. Wiss. Berlin, 1859, 412, Caracus, Venezuela.

Lebistes pæciloides de Filippi, Arch. Zool. Anat. Fisiol., I, 1861, 69, Pl. IV, fig. 6, Barbados.

Girardinus guppæ Günther, Cat., VI, 1866, 353, Trinidad; Venezuela.

Acanthophaelus melanzonus Eigenmann, Ann. Carnegie Mus., VI, 1909, 51, Georgetown Trenches, British Guiana.

Genus 485. MOLLINIENESIA LeSueur.

Molliniesia LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 2 (*Mollinesia latipinna* LeSueur).

1491. *Mollienesia latipinna* LeSueur. *Mudfish*.
 South Carolina to northern Mexico, in lowland swamps and streams.
Mollinesia latipinna LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 3,
 New Orleans.
Pacilia multilincata LeSueur, loc. cit., 4, New Orleans.
Pacilia lincolata Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 70,
 pl. 35, figs. 9 to 11, Rio Grande near Brownsville, Tex.
Limia paciloides Girard, loc. cit., 70, pl. 38, figs. 8 to 14, Indianola, Tex.
Limia matamorenensis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859,
 117, Matamoras.
1492. *Mollienesia gracilis* Regan.
 Lake Peten, Guatemala.
Mollinesia petenensis Günther, Cat., VI, 1866, 348, Lake Peten; not
Pacilia petenensis Günther, also a *Mollienesia*.
Mollinesia gracilis Regan, Proc. Zool. Soc. Lond., 1913, 1012; substitute
 name.
1493. *Mollienesia petenensis* (Günther).
 Lake Peten, Guatemala.
Pacilia petenensis Günther, Cat., VI, 1866, 342, Lake Peten, Guatemala;
 not *Mollinesia petenensis* Günther, loc. cit., 348.
1494. *Mollienesia formosa* (Girard).
 Mexico; Lake Alcohucaca, Huamantla, Mexico; Palo Alto.
Limia formosa Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 115, Palo
 Alto, Mexico.
1495. *Mollienesia spilura* (Günther).
 Streams of Central America.
Pacilia spilurus Günther, Cat., VI, 1866, 345, Central America.
1496. *Mollienesia velifera* Regan.
 Yucatan.
Mollinesia velifera Regan, Ann. Mag. Nat. Hist., 8th ser., XIII, 1914,
 338, Progreso, Yucatan.
1497. *Mollienesia spheonops* (Cuvier and Valenciennes).
 Lowland streams of Mexico and Central America.
Pacilia spheonops Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII,
 1836, 98 (130), 525, Vera Cruz.
Mollinesia fasciata Müller and Troschel, Monatsber. Akad. Wiss. Berlin,
 1844, 36, Mexico.
Pacilia mexicana Steindachner, Sitzungsber., Kais. Akad. Wiss. Wien,
 XLVIII, 1863, 178, taf. 4, fig. 2, southern Mexico.
Pacilia thermalis Steindachner, loc. cit., 181, warm springs in Central
 America.
Xiphophorus gillii Kner and Steindachner, Abhandl. Bayer. Akad.
 Wiss., X, 1864, 28, taf. 4, fig. 1 (1866), Rio Chagres, Panama.
Gambusia modesta Troschel, in Müller's Reisen Vereinigten Staaten,
 Canada and Mexico, III, 1865, 639, Mexico.
Pacilia chisoyensis Günther, Cat., VI, 1866, 342, Rio Chisoy, Vera
 Paz.
Gambusia plumbea Troschel, loc. cit., III, 1865, 640, Mexico.
Pacilia dotii Günther, loc. cit., VI, 1866, 344, Lake Nicaragua; Lake
 Amatitlan.
Platypacilus mentalis Gill, Proc. Acad. Nat. Sci. Phila., XXVIII, 1876,
 335, Isthmus of Panama.
Pacilia boucardi Steindachner, Ichth. Beitr., VI, 1878, 8, Colon (or
 Aspinwall).
Pacilia limantouri Jordan and Snyder, Bull. U. S. Fish Com., XIX,
 1899, 129, fig. 10, Rio Tamesin, Tampico, Mexico.
Pacilia butleri Jordan, Proc. U. S. Nat. Mus., XI, 1888, 330, Rio
 Presidio, Mazatlan.
Platypacilus tropicus Meek, Field Col. Mus., Zool., VII, 1907, 146, Tur-
 rialba, Costa Rica.
Pacilia tenuis Meek, loc. cit., 147, San Jose, Costa Rica.
Pacilia salvatoris Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 65,
 Salvador.
Pacilia spinolata Regan, loc. cit., 8th ser., II, 1908, 460, San Jose.

1498. *Mollienesia sphenops cuneata* (Garman).
Turbo, Gulf of Darien.
Pacilia cuneata Garman, Mem., Mus. Comp. Zool., XIX, 1895, 62, Pl. V, fig. 3, teeth, Turbo, Gulf of Darien.
1499. *Mollienesia sphenops vandepolli* (Van Lindth de Jeude).
Tropical America, abundant in fresh-water pools.
Pacilia vandepolli Van Lindth de Jeude, Notes, Leyden Mus., IX, 1887, 137, Freshwater, Curaçao.
Pacilia vandepolli arubensis Van Lindth de Jeude, loc. cit., 138, Aruba, one of the Leeward Islands.
- Genus 486. **ALFARO** Meek.
Petalosoma Regan, Ann. Mag. Nat. Hist., (8), II, 1908, 462 (*P. cultratum* Regan, name preoccupied).
Alfaro Meek, Field Mus. Nat. Hist., Zool., X, September, 1912, 72 (*A. acutiventris* Meek).
Petalurichthys Regan, Ann. Mag. Nat. Hist., X, November 1912, 494 (*Petalosoma cultratum* Regan; substitute for *Petalosoma* preoccupied).
1500. *Alfaro cultratus* (Regan).
Streams of Costa Rica.
Petalosoma cultratum Regan, Ann. Mag. Nat. Hist., XI, 1908, 458, Rio Iroquois, Costa Rica.
Alfaro acutiventralis Meek, Field Mus. Nat. Hist., Zool., X, 1912, 72, Costa Rica.
- Genus 487. **PLATYPÆCILUS** Günther.
Platypæcilus Günther, Cat., VI, 1866, 350 (*P. maculatus* Günther).
1501. *Platypæcilus maculatus* Günther. *Moonfish of the aquarists*.
Mexico.
Platypæcilus maculatus Günther, Cat., VI, 1866, 350, Mexico.
Platypæcilus variatus Meek, Field Col. Mus., Zool., V, 1904, 145, 146, San Luis Potosi, Mexico.
Platypæcilus maculatus immaculatus Myers, Copeia, No. 113, Dec 20, 1922, 89, a form developed in an aquarium, therefore without standing in scientific nomenclature.
1502. *Platypæcilus couchianus* (Girard).
Rio Grande Basin.
Limia couchiana Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 116, Rio San Juan, at Cadereita and Monterey, in Nuevo Leon, Mexico.
- Genus 488. **XIPHOPHORUS** Heckel.
Xiphophorus Heckel, Sitzungs. Kais. Akad. Wiss. Wien, I, 1848, pt. 3, 163 (*X. helleri* Heckel).
1503. *Xiphophorus helleri* Heckel. *Swordtail*.
Lowland streams of southern Mexico and Guatemala, of Atlantic drainage.
Xiphophorus helleri Heckel, Sitzungs. Kais. Akad. Wiss. Wien, I, 1848, pt. 3, 163, pl. 5, Rio Chisoy, Guatemala.
Xiphophorus jalapa Meek, Field Col. Mus., Zool., III, 1902, 107, Jalapa.
1504. *Xiphophorus helleri guntheri* (Jordan and Evermann)
Rivers of eastern slope of Guatemala.
Xiphophorus guntheri Jordan and Evermann, Fish. North and Mid. Amer., 1896, 702, Rio Chisoy (Usumacinta), Guatemala.
1505. *Xiphophorus helleri strigatus* (Regan).
Atlantic slope of southern Mexico.
Xiphophorus strigatus Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 65; streams of Atlantic slope of southern Mexico; Cordoba, Oaxaca, etc.
1506. *Xiphophorus helleri rachovii* (Regan).
Atlantic slope of Guatemala.
Xiphophorus rachovii Regan, Ann. Mag. Nat. Hist., (8), VIII, 1911, 374, Puerto Barrios between Lake Yzabal and Rio Motagua.

1507. *Xiphophorus helleri brevis* (Regan).
British Honduras.
Xiphophorus brevis Regan, Ann. Mag. Nat. Hist., (7), XIX, 1907, 65,
British Honduras.
1508. *Xiphophorus montezumæ* Jordan and Snyder.
Rio Panuco, eastern Mexico.
Xiphophorus montezumæ Jordan and Snyder, Bull. U. S. Fish Com.,
XIX, 1899 (1900), 131, fig. 11, Rio Panuco, Mexico.

Family 117. ANABLEPIDÆ. Four-eyed fishes

- Genus 489. ANABLEPS (Gronow) Scopeli.
Anableps Gronow, in Scopeli, Introd. Hist. Nat., 1777, 450 (no type
mentioned; *A. anableps* L. understood).
1509. *Anableps anableps* Linnæus. *Cuatro ojos*; *Four-eyed fish*.
Trinidad to Brazil; in streams.
Anableps anableps Linnæus, Syst. Nat., ed. 9, 1756, 55.
Anableps tetraphthalmus Bloch, Naturgesch. Ausl. Fische, VIII, 1794,
7, pl. 361.
1510. *Anableps dowei* Gill. *Cuatro ojos*.
Streams of Central America, locally common (Salvador-Chiapas,
Guatemala).
Anableps dowei Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 4, La
Union, Salvador.

Family 118. AMBLYOPSIDÆ. Cave blindfishes

- Genus 490. CHOLOGASTER Agassiz.
Chologaster Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135 (*C. cornutus*
Agassiz).
1511. *Chologaster cornutus* Agassiz. *Fish of the rice ditches of South Atlantic States*.
Lowland swamps of the Southern States, from the Dismal Swamp to
the Okefinokee Swamp; locally very abundant.
Chologaster cornutus Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 135,
ditch in a rice field in South Carolina.
1512. *Chologaster avitus* Jordan and Jenkins. *Fish of Dismal Swamp*.
Streams and swamps from southeast Virginia southward, probably
varying into *C. cornutus*.
Chologaster avitus Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1888,
356, pl. 44, fig. 8, outlet of Lake Drummond, Dismal Swamp, near
Suffolk, Va.
- Genus 491. FORBESELLA Jordan and Evermann.
Forbesella Jordan and Evermann, Proc., Calif. Acad. Sci., 4th ser., XVI,
1927 (Apr. 27), 503 (*Chologaster papilliferus* Forbes).
This genus stands between the ancient type of *Chologaster* well colored
and with developed eyes, and the colorless blind fishes of the caves
of the middle west. From *Chologaster*, *Forbesella* differs in the pres-
ence of tactile papillæ as in *Amblyopsis*.
1513. *Forbesella papillifera* (Forbes). *Cavefish*.
Cave springs, Union and Pope Counties, Ill.
Chologaster papilliferus Forbes, Amer. Nat., XVI, January, 1882, 1,
cave spring in Union County, southern Illinois.
1514. *Forbesella agassizii* (Putnam).
Underground streams of Tennessee and Kentucky.
Chologaster agassizii Putnam, Amer. Nat., VI, 1872, 30, Pl. 2, figs.
4, 4a, 4b, from a well at Lebanon, Tenn.
- Genus 492. TYPHLICHTHYS Girard.
Typhlichthys Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 63 (*T.*
subterraneus Girard).

1515. *Typhlichthys subterraneus* Girard. *Small blindfish*.
Subterranean streams in limestone regions of Indiana, Kentucky, Tennessee, Missouri, and Alabama.
Typhlichthys subterraneus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 63, well at Bowling Green, Ky.
1516. *Typhlichthys osborni* Eigenmann.
Horse Cave, near Mammoth Cave, Ky.
Typhlichthys osborni Eigenmann, Biol. Bull., VIII, 1905, 65, figs. 3 and 4, Horse Cave, Ky.
1517. *Typhlichthys wyandotte* Eigenmann.
Well near Corydon, Ind.
Typhlichthys wyandotte Eigenmann, Biol. Bull., VIII, 1905, 63, Corydon, Ind.
- Genus 493. **TROGLICHTHYS** Eigenmann.
Troglichthys Eigenmann, A Case of Convergency, Science, new series, IX, 1899, 282 (*Typhlichthys rosæ* Eigenmann).
1518. *Troglichthys rosæ* (Eigenmann). *Missouri cavefish*.
Typhlichthys rosæ Eigenmann, Science, new series, IX, 1899, No. 217, 282, caves in Missouri.
- Genus 494. **AMBLYOPSIS** DeKay.
Amblyopsis DeKay, New York Fauna: Fishes, 1842, 187 (*A. spelæus* DeKay).
1519. *Amblyopsis spelæus* DeKay. *Mammoth Cave blindfish*.
Subterranean streams of the limestone regions of Kentucky and Indiana; River Styx, Mammoth Cave; the largest species of the group.
Amblyopsis spelæus DeKay, New York Fauna: Fishes, 1842, 187, Mammoth Cave, Ky.

Order EE. SYNENTOGNATHI

Family 119. BELONIDÆ. Houndfishes; Needlefishes

- Genus 495. **STRONGYLURA** Van Hasselt.
Strongylura Van Hasselt, Bull. Sci. Nat. Ferussac., II, 1824, 374 (*S. caudimaculata* Van Hasselt=*Belone strongylura* Van Hasselt, 1823).
1520. *Strongylura notata* (Poey). *Needlefish; Longjaws; Gar*.
West Indies, north to Pensacola; common about Key West.
Belone notata Poey, Memorias, II, 1861, 293, Cuba.
1521. *Strongylura scapularis* (Jordan and Gilbert).
Panama.
Tylosurus scapularis Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 307, Panama.
1522. *Strongylura timucu* (Walbaum). *Timucu; Peixe agulha*.
Florida Keys to Brazil; not rare.
Timucu or *Peixe agulha* Marcgrave, Hist. Pisc. Brasil., 1648, 168, Brazil.
Esox timucu Walbaum, Artedi Pisc., III, 1792, 88, Brazil; after *Timucu* of Marcgrave.
Belone subtruncata Poey, Memorias, II, 1860, 295, Habana.
Belone depressa Poey, loc. cit., 296, Cuba.
Tylosurus sagitta Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 25, Key West.
Belone ardeola Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 315 (425), Porto Rico.
Belone cigonella Cuvier and Valenciennes, loc. cit., 323 (436), Porto Rico.
Belone almeida Quoy and Gaimard, Voy. Uranie, Zool., 1824, 226, Bay of Rio Janeiro.
Belone timucu Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 316 (426), Rio de Janeiro.

1523. *Strongylura argalus* (LeSueur).
West Indies.
Belone argalus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 326 (439), Guadeloupe, West Indies.
1524. *Strongylura euryops* (Bean and Dresel). *Longjaw*.
Cuba and Jamaica.
Tylosurus euryops Bean and Dresel, Proc. U. S. Nat. Mus., VII, 1884, 168, Jamaica.
1525. *Strongylura diplotænia* (Cope).
St. Martins Island, West Indies.
Belone diplotænia Cope, Trans. Amer. Phil. Soc., XIV, 1871, 481, St. Martins.
1526. *Strongylura microps* (Günther).
Coast of Guiana.
Belone microps Günther, Cat., VI, 1866, 237, Surinam, British Guiana.
1527. *Strongylura angusticeps* (Günther).
Coast of Ecuador.
Belone angusticeps Günther, Cat., VI, 1866, 238, Ecuador.
1528. *Strongylura stolzmanni* (Steindachner). *Sierrita*.
Pacific coast of America from Guaymas and Mazatlan to Peru.
Belone stolzmanni Steindachner, Ichth. Beitr., VII, 1878, 21, Tumbes, Peru.
Tylosurus sierrita Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 458, Mazatlan.
1529. *Strongylura exilis* (Girard). *Needlefish; California garfish*.
Coast of southern California, from Point Conception southward to Cedros Island, Mexico.
Belone exilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 149, San Diego.
1530. *Strongylura pterura* (Osburn and Nichols).
Gulf of California.
Tylosurus pterurus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 152, fig. 6, Carmen Island, Gulf of California.
1531. *Strongylura marina* (Walbaum). *Garfish; Billfish; Needlefish; Aguñón; Salt-water gar; Silver gar; Swordfish; Green gar; Skippick; Sea pike; Harvest pike; Silvery gar*.
Coast of Maine to Texas; Atlantic and Gulf coasts, entering rivers.
Esox marinus Walbaum, Artedi Pisc., III, 1792, 88; after Schöpl.
Esox longirostris Mitchell, Amer. Month. Mag., II, 1818, 322, Hudson River.
Belone truncata LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 126, New York Bay.
Belone sculator Girard, U. S. Mex. Bound. Surv., Ichth., 1859, 30, pl. 13, Brazos Santiago and St. Joseph Island, Tex.
1532. *Strongylura guianensis* (Müller and Troschel).
Tylosurus guianensis Müller and Troschel in Schomburgk's Reise, III, 1848, 626, coast of Guiana.
- Genus 496. **TYLOSURUS** Cocco.
Tylosurus Cocco, Giorn. Sci. Litt. Art. Sicilia, XVII, 1829, 18 (*T. cantraini* Cocco=?*Sphyræna acus* Lacépède).
1533. *Tylosurus fodiator* Jordan and Gilbert. *Aguñón*.
Pacific coast of Mexico.
Tylosurus fodiator Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 459, Mazatlan.
1534. *Tylosurus raphidoma* (Ranzani). *Houndfish; Aguja de Casta; Guardfish*.
West Indies, Florida Keys to Brazil; north to Ocean City, N. J., and North Carolina.
Belone raphidoma Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842, 359, pl. 37, fig. 1, Brazil.
Belone gerania Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846, 325 (437), Martinique.
Belone crassa Poey, Memorias, II, 1861, 291, Cuba.
Belone melanochira Poey, loc. cit., 294, Cuba.
Tylosurus gladius Bean, Proc. U. S. Nat. Mus., V, 1882, 239, 430, Pensacola, Fla.

1535. *Tylosurus galeatus* (Cuvier and Valenciennes).
Cayenne, French Guiana.
Belone galeata Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII,
1846, 319 (429), Cayenne, French Guiana.
1536. *Tylosurus pacificus* (Steindachner).
Acapulco to Panama.
Belone pacifica Steindachner, Ichth. Beitr., III, 1875, 65, Panama.
1537. *Tylosurus acus* (Lacépède). *Houndfish; Aguñón*.
West Indies and occasionally northward.
Sphyræna acus Lacépède, Hist. Nat. Poiss., V, 1803, 6. pl., 1 fig. 3,
Martinique.
? *Esox imperialis* Rafinesque, Caratteri, 1810, 59, Palermo.
? *Tylosurus cantrainii* Cocco, Giorn. Sci. Litt. Art. Sicilia, XVII, 1829,
18, pl. 1, fig. 4, Messina.
Belone latimana Poey, Memorias, II, 1861, 290, Habana.
Belone jonesi Goode, Amer. Jour. Sci. Arts., XIII, 1877, 295, Bermuda.
1538. *Tylosurus caribbæus* (LeSueur).
West Indies.
Belone caribbæa LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 127,
Caribbean Sea.
Belone altipinna Poey, Memorias, II, 1861, 293, Cuba.
- Genus 497. ABLENNES Jordan and Fordice.
Athlennes Jordan and Fordice, Proc. U. S. Nat. Mus., IX, 1886, 342
(*Belone hians* Cuvier and Valenciennes); error of transcription for
Ablennes.
1539. *Ablennes hians* (Cuvier and Valenciennes).
West Indies, ranging from Florida to Brazil; generally common; also
recorded from Acapulco and Hawaii.
Belone hians Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII, 1846,
321 (432), pl. 548, Bahia; common at Habana.
Belone maculata Poey, Memorias, II, 1861, 290, Cuba.

Family 120. SCOMBERESOCIDÆ

- Genus 498. SCOMBERESOX Lacépède. *Sauries*.
Scomberesox Lacépède, Hist. Nat. Poiss., V, 1803, 344 (*S. camperi*
Lacépède).
Sayris Rafinesque, Caratteri, 1810, 60 (*S. recurvirostra* Rafinesque=
Esox saurus Walbaum).
Grammiconotus Costa, Ann. Mus. Zool. Univ. Napoli, I, 1862, 55 (*G.*
bicolor Costa; said to lack the air bladder).
1540. *Scomberesox saurus* (Walbaum). *Saury; Skipper; Billfish; Skipjack*.
Temperate parts of Atlantic Ocean; common in schools especially
north of Cape Cod and France.
Esox saurus Walbaum, Artedi Pisc., III, 1792, 93, Cornwall; after the
saury pike of Pennant.
Scomberesox camperi Lacépède, Hist. Nat. Poiss., V, 1803, 345, locality
unknown.
Sayris recurvirostra Rafinesque, Caratteri, 1810, 61; substitute for
camperi.
Sayris hians Rafinesque, loc. cit., 61, Palermo.
Sayris bimaculatus Rafinesque, loc. cit., 62, Palermo.
Scomberesox scutellatum LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821
(1823), 132, Newfoundland.
Scomberesox storeri DeKay, N. Y. Fauna: Fishes, 1842, 229, pl. 35,
fig. 3, Banks of Newfoundland; coast of Massachusetts; New York.
Scomberesox equirostrum LeSueur, Jour. Acad. Nat. Sci. Phila., II,
1821 (1823), 132, locality unknown.
Scomberesox rondeletii Cuvier and Valenciennes, Hist. Nat. Poiss., XVIII,
1846, 350 (472), Mediterranean.
Grammiconotus bicolor Costa, Ann. Mus. Zool. Univ. Napoli, I, 1862,
55, Naples.
? *Scomberesox forsteri* Cuvier and Valenciennes, Hist. Nat. Poiss.,
XVIII, 1846, 357 (481), New Zealand.
Sayris serrata Rafinesque, Caratteri, 1810, 61, after Rondelet.

Genus 499. *COLOLABIS* Gill.

Cololabis Gill, Proc. U. S. Nat. Mus., XVIII, 1895, 176 (*Scomberesox brevirostris* Peters).

1541. *Cololabis brevirostris* (Peters).

Coast of California, south to San Diego in the open sea; often in schools. *Scomberesox brevirostris* Peters, Monatsberichte Akad. Wiss. Berlin, July, 1866, 521, Tomales Bay, Calif.; perhaps not separable from the Japanese *Cololabis saira* Brevoort.

Family 121. *HEMIRAMPHIDÆ*. HalfbeaksGenus 500. *EULEPTORHAMPHUS* Gill.

Euleptorhamphus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 156 (*E. brevoortii* Gill=probably *E. velox* Poey).

1542. *Euleptorhamphus longirostris* (Cuvier).

East Indies; Galapagos Islands.

Hemirhamphus longirostris Cuvier, Règne Anim., ed. 2, II, 1829, 286, warm seas of both hemispheres.

1543. *Euleptorhamphus velox* Poey. *Slender halfbeak*.

West Indies, occasionally northward in the Gulf Stream to Massachusetts.

? *Euleptorhamphus brevoortii* Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 156, no locality.

Euleptorhamphus velox Poey, Synopsis, 1867, 383, Cuba; perhaps identical with the preceding.

Genus 501. *HYPORHAMPHUS* Gill. *Halfbeaks*.

Hyporhamphus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 131 (*H. tricuspidatus* Gill=*Hemirhamphus unifasciatus* Ranzani).

1544. *Hyporhamphus unifasciatus* (Ranzani). *Common halfbeak; Escribano; Pajarito*.

Tropical seas on both coasts of America from Brazil north to Rhode Island, New Jersey, Guaymas, and Mazatlan; generally common from Key West to Rio de Janeiro; also from Guaymas to the Galapagos; variable; but the distinction into two or more species not trustworthy.

Hemirhamphus unifasciatus Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842, 326, Brazil.

? *Hemirhamphus picarti* Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 18 (25), Bono, Algiers.

Hemirhamphus richardi Cuvier and Valenciennes, loc. cit., 19 (26), St. Croix, Antilles.

Hyporhamphus tricuspidatus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 131, Barbados.

Hemirhamphus fasciatus Poey, Memorias, II, 1861, 299, Cuba; not of Bleeker.

1545. *Hyporhamphus roberti* ³⁵ (Cuvier and Valenciennes).

Both coasts of tropical America; West Indies and Brazil north to Rhode Island, and on the Pacific coast from Gulf of California to the Galapagos.

Hemirhamphus roberti Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 18 (24), Cayenne.

1546. *Hyporhamphus gilli* Meek and Hildebrand.

Acapulco to the Galapagos.

Hyporhamphus gilli Meek and Hildebrand, Field Mus. Nat. Hist. Pub. 215, Zool. Ser., XV, Dec. 20, 1923, 240, Pl. XVII, fig. 1, Panama Bay, Balboa.

1547. *Hyporhamphus rosæ* (Jordan and Gilbert).

Coast of southern California and probably southward.

Hemirhamphus rosæ Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 335, San Diego, Calif.

³⁵ This species is slenderer than *H. unifasciatus*, with longer beak and more numerous gill rakers, 28 to 31 on lower limb (21 in *H. unifasciatus*).

- 1548. *Hyporhamphus snyderi* Meek and Hildebrand.**
Lower California to Panama.
Hyporhamphus snyderi Meek and Hildebrand, Field Mus. Nat. Hist.
Pub. 215, Zool., Ser. XV, Dec. 20, 1923, 240, Pl. XVII, fig. 2, Balboa,
Panama Bay.
- Genus 502. HEMIRAMPUS Cuvier.**
Hemiramphus Cuvier, Règne Anim., ed. 1, II, 1817, 186 (*Esox brasiliensis* Linnæus).
- 1549. *Hemiramphus brasiliensis* (Linnæus).** *Balao; Escribano; Red-tailed balao.*
West Indies, generally abundant from Key West southward to Bahia.
Esox brasiliensis Linnæus, Syst. Nat., ed. X, 1758, 314, Jamaica; after
Browne; the *Timucu* of Macgrave wrongly included in the synonymy;
Bloch, Ichth., 1801, 391, corrected synonymy and description.
Hemiramphus brownii Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 10 (13), Guadeloupe, Martinique.
Hemiramphus pleii Cuvier and Valenciennes, loc. cit., 15 (19), Mar-
tinique, San Domingo.
Macrogathus brevirostris Gronow, Cat. Fish., 1854, 148, America;
after Browne.
Hemiramphus filamentosus Poey, Memorias, II, 1861, 297, Cuba.
- 1550. *Hemiramphus balao* LeSueur.** *Balao; Piper; Blue-tailed balao.*
Cuba; also known from Panama; Guadeloupe; Martinique.
Hemiramphus balao LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1823,
136, Lesser Antilles, Guadeloupe, Martinique.
Hemiramphus macrochirus Poey, Memorias, II, 1861, 299, Cuba.
- 1551. *Hemiramphus saltator* Gilbert and Starks.**
Panama; Galapagos Islands.
Hemiramphus saltator Gilbert and Starks, Mem. Calif. Acad. Sci.,
IV, 1904, 53, Pl. IX, fig. 16, Panama.
- Genus 503. CHRIDORUS Goode and Bean.** *Hardheads.*
Chriodorus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 431 (*C. atherinoides* Goode and Bean).
- 1552. *Chriodorus atherinoides* Goode and Bean.** *Hardhead.*
Florida Keys and vicinity.
Chriodorus atherinoides Goode and Bean, Proc. U. S. Nat. Mus., V,
1882, 432, Key West, Fla.
- Genus 504. HEMIEXOCÆTUS Fowler.**
Hemioxætus Fowler, Proc. Acad. Nat. Sci. Phila., LIII, 1901, 293
(*H. caudimaculatus* Fowler).
- 1553. *Hemioxætus caudimaculatus* Fowler.**
Mazatlan, Mexico.
Hemioxætus caudimaculatus Fowler, Proc. Acad. Nat. Sci. Phila.,
LIII, 1901, 294, Mazatlan, Mexico.
- Family 122. EXOCÆTIDÆ. Flyingfishes**
- Genus 505. FODIATOR Jordan and Meek.**
Fodiator Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 45
(*Exocætus acutus* Cuvier and Valenciennes).
- 1554. *Fodiator acutus* (Cuvier and Valenciennes).** *Sharp-nosed flyingfish.*
Both shores of tropical America; Gulf of California; San Luis Gonzales;
Panama; Nice.
Exocætus acutus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 91 (125), Surinam; Nice.
- Genus 506. EVOLANTIA Heller and Snodgrass.**
Evolantia Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 189
(*Exocætus micropterus* Cuvier and Valenciennes).
- 1555. *Evolantia microptera* (Cuvier and Valenciennes).** *Malolo.*
Galapagos Islands.
Exocætus micropterus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 92 (127), Port King George, New Holland, etc.

Genus 507. PAREXOCÆTUS Bleeker.

Parexocætus Bleeker, Nederl. Tijdschr. Dierk., III, 1866, 126 (*Exocætus mento* Cuvier and Valenciennes).

1556. Parexocætus mesogaster (Bloch).

Tropical seas; East Indies and West Indies; Hawaiian Islands; Newport, Rhode Island; Carolina coast.

Exocætus mesogaster Bloch, Naturgesch. Ausl. Fisch., IX, 1795, 17, Martinique; on a drawing by Plumier, in which the pectorals and ventrals are much too long.

Exocætus orbignianus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 95 (131), Montevideo.

Exocætus hillianus Gosse, Naturalist's Sojourn in Jamaica, II, 1851, Pl. I, fig. 1, Jamaica.

Exocætus gryllus Klunzinger, Verhandl. Zool. Botan. Gesell. Wien, 1871, 586, Red Sea.

Genus 508. EXOCÆTUS Linnæus. *Flyingfishes.*

Exocætus Linnæus, Syst. Nat., ed. X, 1758, 316 (*E. volitans*).

1557. Exocætus volitans Linnæus. *Sharp-finned flyingfish.*

Warm seas; Atlantic coast north to Newfoundland; England; Hawaiian Islands and Japan, largely pelagic.

Exocætus volitans Linnæus, Syst. Nat., ed. X, 1758, 316, Atlantic Ocean; not of Cuvier and Valenciennes.

Exocætus evolans Linnæus, loc. cit., ed. XII, 1766, 521; after Gronow.

Exocætus splendens Abel, Narr. Voy. China, 1818, 4, China.

Exocætus georgianus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 139, equatorial America.

Exocætus chiliensis Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 472, Chile.

1558. Exocætus obtusirostris Günther.

Tropical Atlantic; recorded from Cape Verde Islands, New Orleans, and Miami, Fla.

Exocætus obtusirostris Günther, Cat., VI, 1866, 283, Cape Verde Islands, etc.; according to Nichols (Copeia, No. 108, 1922, 49), this is different from *E. volitans*.

Genus 509. EXONAUTES Jordan and Evermann.

Exonautes Jordan and Evermann, Rept. U. S. Fish Com., 1895, 322 (*Exocætus exsiliens* P. L. S. Müller).

1559. Exonautes exsiliens (P. L. S. Müller).

Open seas; rare on our Atlantic coast.

Exocætus exsiliens Philip Ludwig Statius Müller, Nürnberg, ed. Linnæus, Syst. Nat., 1776, 209, Carolinas.

Exocætus fasciatus LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 8, pl. 4, fig. 2, Atlantic.

Exocætus lamellifer Kner and Steindachner, Neue Fische Godeffroy Mus., 1866, 29, Atlantic 12° S., 39° W.

1560. Exonautes rondeletii (Cuvier and Valenciennes).

Tropical seas; Florida; France; Acapulco; West Indies; southern Europe; perhaps the adult of *E. exsiliens*.

Exocætus rondeletii Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 84 (115), pl. 562, Naples; Sicily; Canaries.

Exocætus brachycephalus Günther, Cat., VI, 1866, 297, China.

Exocætus volador Jordan, Proc. U. S. Nat. Mus., VII, 1884, 34 Pensacola, Fla.

1561. Exonautes vinciguerræ (Jordan and Meek).

Open Atlantic; southern Europe; Newfoundland; St. Martins; Gulf of Mexico.

Exocætus vinciguerræ Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 56, open sea off Newfoundland, 46° N., 61° W.

1562. *Exonautes rubescens* (Rafinesque).

Atlantic Ocean, north to Newfoundland; also in the Pacific if *E. speculiger* is the same.

Exocetus rubescens Rafinesque, Amer. Month. Mag., 1818, 205, Banks of Newfoundland.

? *Exocetus speculiger* Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 69 (63), Friendly Islands, Pacific coast of South America, etc.

Exocetus roberti Müller and Troschel, Schomburgk's Hist. Barbados, 1848, 675, Barbados.

? *Exocetus quadriremus* Gronow, Cat. Fish., 1854, 145, Spain and India. *Exocetus volitans* of various authors; not of Linnæus.

1563. *Exonautes affinis* (Günther).

West Indies to Africa; locally common.

Exocetus affinis Günther, Cat., VI, 1866, 288, West Africa; Cuba.

1564. *Exonautes rufipinnis* (Cuvier and Valenciennes).

Tropical America; Payta; Panama; Tabasco; Barbados.

Exocetus rufipinnis Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 72 (99), Payta, Peru.

Exocetus dowii Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 167, near Panama.

Exocetus scylla Cope, Trans. Amer. Phil. Soc., XIV, 1871, 481, Tabasco, Mexico.

Genus 510. CYPSELURUS Swainson:

Cypsilurus Swainson, Class. Fishes, etc., II, 1839, 296 (*Exocetus nuttalli* LeSueur); misprint for *Cypselurus*, according to decision Int. Com. Zool. Nom.

1565. *Cypselurus heterurus* (Rafinesque). *Flyingfish: Single-bearded flyingfish.*

Atlantic Ocean, generally common southward to Newfoundland and to England.

Exocetus heterurus Rafinesque, Caratteri, 1810, 58, Palermo.

Exocetus comatus Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 448, pl. 5, fig. 1, New York.

Exocetus noveboracensis Mitchill, Amer. Month. Mag., II, 1818, 333, New York.

Exocetus appendiculatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1824, 283, pl. 17, fig. 2, locality unknown.

Exocetus melanurus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 74 (101), New York.

1566. *Cypselurus lutkeni* (Jordan and Evermann).

Coast of Cuba.

Exocetus lutkeni Jordan and Evermann, Fishes North and Mid. Amer., 1896, 736, Cape San Antonio, Cuba.

1567. *Cypselurus furcatus* (Mitchill). *Double-bearded flyingfish.*

Warm seas, north to Cape Cod and the Mediterranean, generally common.

Exocetus furcatus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 449, New York.

Exocetus nuttalli LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 10, Pl. IV, fig. 1, Gulf of Mexico.

Exocetus (Cypselurus) procne De Filippie Verany, Mem. Acad. Sci. Torino, ser. 2, XVIII, 1857, 10, fig. 5, Nice.

Exocetus maculipinnis Vinciguerra, Ann. Mus. Genov., XVIII, 1883, pl. 1, fig. 6, 577, Tunis.

1568. *Cypselurus nigricans* (Bennett).

Tropical seas, north to Cuba, Central America, and France.

Exocetus nigricans Bennett, Whaling Voyage, II, 1840, 287, taken in both the Atlantic and Pacific Oceans, in lat. 5° N.

Exocetus bicolor Cuvier and Valenciennes, Hist. Nat. Poiss., XIX, 1846, 81 (111), Atlantic.

Exocetus spilopus Cuvier and Valenciennes, loc. cit., 86 (118), La Rochelle; St. Helena; West Indies; India; Arabia; De Witt Land.

1569. *Cypselurus xenopterus* (Gilbert).
Clarion Island, one of the Revillagigedo Islands.
Exocetus xenopterus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 58,
Clarion Island.
1570. *Cypselurus lineatus* (Cuvier and Valenciennes).
Tropical Atlantic; Gorea; the Canaries; Madeira and Bermuda.
Exocetus lineatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 67 (92), Gorea; Canaries.
1571. *Cypselurus cyanopterus* (Cuvier and Valenciennes).
Coasts of Brazil and Caribbean Sea; not common.
Exocetus cyanopterus Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 71 (98), American seas.
Exocetus albidactylus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 167,
Caribbean Sea.
1572. *Cypselurus bahiensis* (Ranzani).
Tropical Atlantic; north to Cuba.
Exocetus bahiensis Ranzani, Nov. Com. Acad. Sci. Bonon., V, 1842,
362, pl. 38, Bahia.
Exocetus vermiculatus Poey, Memorias, II, 1861, 300, Cuba.
? *Exocetus parræ* Poey, Synopsis, 1868, 385, Cuba.
1573. *Cypselurus spilonopterus* (Bleeker).
Tropical Pacific, north to Hawaii and Galapagos Islands.
Exocetus spilonopterus Bleeker, Nederl. Tijdschr. Dierk., III, 1863,
113, Sumatra.
1574. *Cypselurus californicus* (Cooper). *Great flyingfish; Volador.*
Southern California; Point Conception to Cape San Lucas; Santa
Barbara Islands; locally very abundant.
Exocetus californicus Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 93,
fig. 20, Santa Catalina Island.
1575. *Cypselurus callopterus* (Günther).
Panama.
Exocetus callopterus Günther, Cat., VI, 1866, 292, Panama.
1576. *Cypselurus fucorum* (Zugmayer).
Mid-Atlantic.
Exocetus fucorum Zugmayer, Bull. 193, Inst. Oceanogr., Jan. 20, 1911,
in 31° 38' N., 42° 38' W., at surface.
1577. *Cypselurus holubi* (Steindachner).
Exocetus holubi Steindachner, in Collett, Voy. *Hirondelle*, 1896, 123,
Pl. IV, fig. 18, Newfoundland.
1578. *Cypselurus gibbifrons* (Cuvier and Valenciennes).
Atlantic Ocean; Newport, R. I.
Exocetus gibbifrons Cuvier and Valenciennes, Hist. Nat. Poiss., XIX,
1846, 86 (118), Atlantic.

Order FF. ANACANTHINI

Family 123. MACROURIDÆ (Coryphænoididæ). Grenadiers; Rat-tails

Genus 511. GADOMUS Regan.

Gadomus Regan, Ann. Mag. Nat. Hist., XII, 1903, 459, 466 (*Bathygadus longifilis* Goode and Bean).

1579. *Gadomus arcuatus* (Goode and Bean).
Gulf of Mexico, in deep water.
Bathygadus arcuatus Goode and Bean, Bull. Mus. Comp. Zool., XII,
1886, No. 5, 158, off Martinique in 334 fathoms.
1580. *Gadomus longifilis* (Goode and Bean).
Deep waters of the Gulf of Mexico.
Bathygadus longifilis Goode and Bean, Proc. U. S. Nat. Mus., VIII,
1885, 599, Gulf of Mexico at Albatross station 2392, lat. 28° 47' 30''
N., long. 87° 27' W., in 724 fathoms.

Genus 512. BATHYGADUS Günther.

Bathygadus Günther, Ann. Mag. Nat. Hist., II, 1878, 23 (*B. cottoides* Günther).

Melanobranchus Regan, loc. cit., (7), XI, 1903, 459 (*Bathygadus melanobranchus* Vaillant).

1581. *Bathygadus favosus* Goode and Bean.

Off Martinique, in deep water.

Bathygadus favosus Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 160, off Martinique at Blake station 80 in 472 fathoms.

1582. *Bathygadus macrops* Goode and Bean.

Deep waters of the Gulf of Mexico.

Bathygadus macrops Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 598, at Albatross station 2396 in lat. 28° 34' N., long. 86° 48' W., in 335 fathoms.

Genus 513. STEINDACHNERIA Goode and Bean.

Steindachneria Goode and Bean, in Agassiz, Three Cruises of the Blake, II, 1888, 26 (diagnosis but no type named); not *Steindachneria* Eigenmann 1888 = *Steindachneridion* Eigenmann and Eigenmann, 1919.

Steindachnerella Eigenmann and Eigenmann, Amer. Nat., XXXI, 1897, 159 (*Steindachneria argentea* Goode and Bean).

1583. *Steindachneria argentea* Goode and Bean.

Gulf of Mexico.

Steindachneria argentea Goode and Bean, Oceanic Ichth., 1896, 419, fig. 351, off delta of Mississippi River in 68 fathoms.

Genus 514. TRACHYRINCUS Giorna.

Trachyrincus Giorna, Mem. Acad. Imp. Turin, XVI, 1805, 4, 179, (*Lepidolepsus trachyrincus* Risso, not mentioned).

1584. *Trachyrincus helolepis* (Gilbert).

Off the Pacific coast of Central America.

Trachyrhynchus helolepis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 562, Pacific coast of Central America, at Albatross station 2818, in deep water.

Genus 515. DOLLOA Jordan.

Moseleya Goode and Bean, Oceanic Ichth., 1895, 417 (*Macrurus longifilis* Günther); name preoccupied.

Dolloa Jordan, Amer. Nat., XXXIV, 1900, 877 (*Macrurus longifilis* Günther).

1585. *Dolloa cyclolepis* (Gilbert).

Coast of British Columbia.

Nematonurus cyclolepis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 458, off Queen Charlotte Island in 1,588 fathoms.

Genus 516. NEMATONURUS Günther.

Nematonurus Günther, Challenger Rept., Deep Sea Fishes, XXII, 1887, 124, 150 (*N. armatus* Hector).

1586. *Nematonurus goodii* (Günther).

Gulf Stream from Cape Cod to Habana; generally abundant.

Macrurus asper Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, No. 5, 196, Gulf Stream, south of New England in 1,242 fathoms.

Macrurus goodii Günther, Challenger Report, XXII, 1887, 36; substitute for *Macrurus asper*, preoccupied.

1587. *Nematonurus suborbitalis* (Gill and Townsend).

Bering Sea.

Macrurus suborbitalis Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 234, Bering Sea, southwest of Pribilof Islands, in 1,771 fathoms.

1588. *Nematonurus acrolepis* (Bean).

Straits of Juan de Fuca; off Bogoslof Island, north of Aleutian Islands; once taken at Monterey (W. F. Thompson).

Macrurus acrolepis Bean, Proc. U. S. Nat. Mus., VI, 1883, 362, Port Townsend, Wash.

1589. *Nematonurus abyssorum* Gilbert.
Off southern California in deep water.
Nematonurus abyssorum Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 374, pl. 21, off Santa Catalina in 1,350 to 2,182 fathoms.
- Genus 517. **ALBATROSSIA** Jordan and Evermann.
Albatrossia Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2573 (*Macrourus pectoralis* Gilbert).
1590. *Albatrossia pectoralis* (Gilbert).
Off coast of Oregon.
Macrourus (*Malacocephalus*) *pectoralis* Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 563, off coast of Oregon, at Albatross stations 3071, 3074, and 3075, in 685 to 877 fathoms.
Macrurus (*Nematonurus*) *magnus* Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 234, Bering Sea, southwest of Pribilof Islands.
- Genus 518. **BOGOSLOVIUS** Jordan and Evermann.
Bogoslavius Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2574 (*B. clarki* Jordan and Gilbert).
1591. *Bogoslavius clarki* Jordan and Gilbert.
Bering Sea.
Bogoslavius clarki Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2575, Bering Sea off Bogoslof Island in 664 fathoms.
1592. *Bogoslavius firmisquamis* (Gill and Townsend).
Bering Sea.
Macrurus firmisquamis Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 234, Bering Sea southwest of Pribilof Islands.
- Genus 519. **CHALINURA** Goode and Bean.
Chalinura Goode and Bean, Bull. Mus. Comp. Zool., X, 1882, No. 5, 198 (*C. simula* Goode and Bean).
Chalinurus Günther, altered spelling.
1593. *Chalinura occidentalis* (Goode and Bean).
Atlantic Ocean off Cape Hatteras and Caribbean Sea.
Malacocephalus occidentalis Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 597, off Cape Hatteras in 132 fathoms.
1594. *Chalinura serrula* Bean.
East of Prince of Wales Island in deep water.
Chalinura serrula Bean, Proc. U. S. Nat. Mus., XIII, 1890, 37, east of Prince of Wales Island, at Albatross station 2859 in 1,569 fathoms.
1595. *Chalinura filifera* Gilbert.
Off Queen Charlotte Island, in deep water.
Chalinura filifera Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896), 458, off Queen Charlotte Island, at Albatross station 3342.
1596. *Chalinura simula* Goode and Bean.
Gulf Stream.
Chalinura simula Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 199, Gulf Stream, about latitude 40°.
1597. *Chalinura breviparbis* Goode and Bean.
Atlantic Basin.
Chalinura breviparbis Goode and Bean, Oceanic Ichth., 1895, 413, Atlantic Ocean in 1,255 fathoms.
1598. *Chalinura spinulosa* Gilbert and Burke.
East coast of Kamchatka.
Chalinura spinulosa Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 92, fig. 36, Avatcha Bay.
- Genus 520. **CORYPHÆNOIDES**³⁶ Gunner.
Coryphænoides Gunner, Trondhj. Selsk. Skrift., III, 1765, 50 (*C. rupestris* Gunner).

³⁶ The name *Coryphænoides* is older than *Macrourus*, the term usually applied to the species of this genus. The distinction between *Coryphænoides* and *Macrourus* is rather slight, the month in *Macrourus* being smaller and more inferior. Gilbert and Hubbs unite the two groups as *Coryphænoides*. Many species have been described from the deep waters of America. These we leave in *Coryphænoides* or in *Macrourus* as their describers have placed them. Some of the genera accepted here are of questionable value.

1599. *Coryphænoides rupestris* Gunner.
Banks of Newfoundland to Norway.
Coryphænoides rupestris Gunner, Trondhj. Selsk. Skrift., III, 1765, 50.
Lepidolepus norvegicus Nilsson, Prodr. Ichth. Scand., 1832, 51, Norway.
1600. *Coryphænoides carapinus* Goode and Bean.
Gulf Stream.
Coryphænoides carapinus Goode and Bean, Bull., Mus. Comp. Zool., X, 1883, No. 5, 197, Gulf Stream, about lat. 40°, in deep water.
- Genus 521. *MACROURUS*³⁷ Bloch.
Macrourus Bloch, Naturgesch. Ausl. Fische, II, 1786, 150 (*Coryphæna rupestris* Fabricius = *Macrourus berglax* Lacépède); not *Coryphænoides rupestris* Gunner.
Macrurus Günther, and of most authors; corrected spelling.
1601. *Macrourus berglax* Lacépède.
Massachusetts to Greenland and Norway.
? *Coryphæna rupestris* Fabricius, Fauna Grœnlandica, 1780, 154, Greenland.
Macrourus berglax Lacépède, Hist. Nat. Poiss., III, 1802, 170, Greenland.
1602. *Macrourus bairdi* Goode and Bean. *Common rat-tail*.
West Indies to Massachusetts Bay; excessively common north in deep water.
Macrourus bairdi Goode and Bean, Amer. Jour. Sci. Arts., XIII, 1877, 471, Massachusetts Bay.
1603. *Macrourus stelgidolepis* Gilbert.
Pacific Ocean off Point Conception, Calif.
Macrurus (*Macrourus*) *stelgidolepis* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 116, Albatross station 2960, lat. 34° 10' 45'' N., long. 120° 16' 45'' W., in 267 fathoms.
1604. *Macrourus cinereus* Gilbert. *Popeye*.
North Pacific and Bering Sea; very abundant.
Macrurus cinereus Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896), 457, at Albatross stations 3307, 3329, and 3340, lat. 54° to 55° N. and long. 155° to 171° W., in 399 to 1,033 fathoms.
1605. *Macrourus bulbiceps* Garman.
Off Cocos Islands in deep water.
Macrurus bulbiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 194, Pl. XLIV, off Cocos Islands.
1606. *Macrourus bucephalus* Garman.
Off Galapagos Islands to Gulf of California, in deep water.
Macrurus bucephalus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 195, Pl. XLIV, Gulf of California.
1607. *Macrourus barbiger* Garman.
Gulf of California in deep water.
Macrurus barbiger Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 197, Pl. XLV, Gulf of California.
1608. *Macrourus capito* Garman.
Off Panama in deep water.
Macrurus capito Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 200, off Bay of Panama.
1609. *Macrourus leucophæus* Garman.
Off Panama in deep water.
Macrurus leucophæus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 201, off Bay of Panama.
1610. *Macrourus boöps* Garman.
Off Panama in deep water.
Macrurus boöps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 202, off Bay of Panama.

³⁷ The many deep-sea forms described by Garman are nearly all referred to *Macrourus* without reference to the closely related minor genera proposed for forms allied to *Macrourus* and *Coryphænoides*, the two principal genera of the family, and themselves barely separable.

1611. **Macrourus fragilis** Garman.
Off Panama in deep water.
Macrurus fragilis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 203,
Pl. XLV, off coast of Panama.
1612. **Macrourus carminifer** Garman.
Off Panama in deep water.
Macrurus carminifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
204, Pl. XLVI, off Bay of Panama.
1613. **Macrourus gracilicauda** Garman.
Off Panama in deep water.
Macrurus gracilicauda Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
206, Pl. H, off Bay of Panama.
1614. **Macrourus orbitalis** Garman.
Off Panama in deep water.
Macrurus orbitalis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 207,
Pl. XLVII, off Bay of Panama.
1615. **Macrourus cuspidatus** Garman.
Gulf of California in deep water.
Macrurus cuspidatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
209, Gulf of California.
1616. **Macrourus convergens** Garman.
Off Panama in deep water.
Macrurus convergens Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
210, Pl. XLVIII, off Bay of Panama.
1617. **Macrourus latirostratus** Garman.
Off Panama in deep water.
Macrurus latirostratus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
211, Pl. XLVIII, off Bay of Panama.
1618. **Macrourus latinus** Garman.
Gulf of California in deep water.
Macrurus latinus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
214, Gulf of California.
1619. **Macrourus anguliceps** Garman.
From Galapagos Islands to Gulf of California in deep water.
Macrurus anguliceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
212, Pl. G; off Bay of Panama.
1620. **Macrourus trichurus** Garman.
Off Panama in deep water.
Macrurus trichurus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
215, off Bay of Panama.
1621. **Macrourus tenuicauda** Garman.
Off Panama in deep water.
Macrurus tenuicauda Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
216, Pl. XLIX, off Bay of Panama.
1622. **Macrourus canus** Garman.
Off Panama in deep water.
Macrurus canus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 217,
Pl. XLIX, off Bay of Panama.
1623. **Macrourus albatrossus** Townsend and Nichols.
Off Lower California in deep water.
Macrurus albatrossus Townsend and Nichols, Bull. Amer. Mus. Nat.
Hist., LII, 1925, 17, lat. 31° W., southwest of San Diego in 1,076
fathoms.
1624. **Macrourus ingolfi** Lütken.
Iceland and Greenland in deep water.
Macrurus ingolfi Lütken, Ichth. Ingolf Exped., 1898, 27, south of Iceland.

1625. **Macrourus lepturus** Gill and Townsend.
 Bering Sea, St. Paul Island, Yunaska Island.
Macrourus lepturus Gill and Townsend, Proc. Biol. Soc. Wash., XI,
 1897, 233, Bering Sea, southwest of the Pribilof Islands, in 1,401
 fathoms.
Macrurus dorsalis Gill and Townsend, loc. cit., 233, Bering Sea, south-
 west of Pribilof Islands, in 1,401 fathoms.
- Genus 522. **CÆLORHYNCHUS** Giorna.
Cælorhynchus Giorna, Mem. Acad. Nat. Sci. Turin, XVI, 1805, 179,
 pl. 1, figs. 3 and 4 (*C. laville* Giorna).
1626. **Cælorhynchus occa** (Goode and Bean.)
 Gulf of Mexico in deep water.
Macrurus occa Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885,
 595, Gulf of Mexico in 335 fathoms.
1627. **Cælorhynchus carminatus** (Goode). *Grenadier*.
 Caribbean Sea, north in the Gulf Stream to Long Island.
Macrurus carminatus Goode, Proc. U. S. Nat. Mus., III, 1880, 346,
 Gulf Stream, 40° 02' 54" N., 70° 23' 40" W., in 115 fathoms.
1628. **Cælorhynchus caribbæus** (Goode and Bean).
 West Indies to northern part of Gulf of Mexico.
Macrurus caribbæus Goode and Bean, Proc. U. S. Nat. Mus., VIII,
 1885, 594, northern part of Gulf of Mexico in 210 fathoms.
1629. **Cælorhynchus scaphopsis** (Gilbert).
 Gulf of California in deep water.
Macrurus (Cælorhynchus) scaphopsis Gilbert, Proc. U. S. Nat. Mus.,
 XIII, 1890, 115, Gulf of California at Albatross station 3015, lat.
 29° 19' N., long. 112° 50' W., in 145 fathoms.
- Genus 523. **TRACHONURUS** Günther.
Trachonurus Günther, Challenger Rept., Deep-sea Fishes, XXII, 1887,
 124 (*Macrurus villosus* Günther).
1630. **Trachonurus sulcatus** (Goode and Bean).
 West Indies and Gulf of Mexico in deep water.
Coryphænoides sulcatus Goode and Bean, Proc. U. S. Nat. Mus., VIII,
 1885, 596, Gulf of Mexico in 420 fathoms.
- Genus 524. **LIONURUS** Günther.
Lionurus Günther, Challenger Rept., Deep-sea Fishes, XXII, 1887, 124
 (*Coryphænoides filicauda* Günther).
1631. **Lionurus liolepis** (Gilbert).
 Off southern California in deep water.
Macrurus (Lionurus) liolepis Gilbert, Proc. U. S. Nat. Mus., XIII,
 1890, 117, coast of California at Albatross station 2980, lat. 33° 49'
 45" N., long. 119° 24' 30" W. in 600 fathoms.
- Genus 525. **HYMENOCEPHALUS** Giglioli and Issel.
Hymenocephalus Giglioli and Issel, Pelagos, Genoa, 1884, 228 (*H.*
italicus Giglioli and Issel).
1632. **Hymenocephalus cavernosus** (Goode and Bean).
 Gulf of Mexico in deep water.
Bathygadus cavernosus Goode and Bean, Proc. U. S. Nat. Mus., VIII,
 1885, 598, Albatross station 2398, lat. 28° 45' N., long. 86° 26' W.
 in 227 fathoms.
- Genus 526. **ATELEOBRACHIUM** Gilbert and Burke.
Ateleobrachium Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910,
 94 (*A. pterotum* Gilbert and Burke).
1633. **Ateleobrachium pterotum** Gilbert and Burke.
 East coast of Kamchatka.
Ateleobrachium pterotum Gilbert and Burke, Bull. U. S. Bur. Fish.,
 XXX, 1910, 94, Avatcha Bay.

Family 124. BREGMACEROTIDÆ

Genus 527. BREGMACEROS (Cantor) Thompson.

Bregmaceros Thompson, in Charlesworth's Mag. Nat. Hist., IV, 1840, I, 184 (*B. macclellandii* Thompson).

Calloptilum Richardson, Voy. Sulphur, 94, 1843, 16 (*C. mirum* Richardson).

Asthenurus Tickell, Jour. Asiat. Soc. Bengal, 1865, 32 (*A. atripinnis* Tickell).

1634. *Bregmaceros bathymaster* Jordan and Bollman.

South Pacific and Indian Oceans; also off coast of Panama.

?*Bregmaceros macclellandii* Cantor, in Charlesworth's Mag. Nat. Hist., IV, 1840, 184, fig. 185, India.

?*Asthenurus atripinnis* Tickell, Jour., Asiat. Soc. Bengal, 1865, 32, with plate, Bay of Bengal.

Bregmaceros bathymaster Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 173, southwest of Panama.

1635. *Bregmaceros atlanticus* Goode and Bean.

Blake stations 99, off Granada, 113, off Nevis; and 185.

Bregmaceros atlanticus Goode and Bean, Bull., Mus. Comp. Zool., XII, 1886, No. 5, 165, off Nevis and Granada, West Indies.

1636. *Bregmaceros longipes* Garman.

Off coast of Acapulco, Mexico, in shallow water.

Bregmaceros longipes Garman, Mem., Mus. Comp. Zool., XXIV, 1899, 191, Pl. XLIII, off Pacific coast of Mexico.

Family 125. GAIDROPSARIDÆ. Rocklings

Genus 528. GAIDROPSARUS Rafinesque. *Three-bearded rocklings.*

Gaidropsarus Rafinesque, Indice, II, 1810, 51 (*G. mustellurus* = *Enchelyopus mediterraneus* Schneider).

Dropsarus Rafinesque, Anal. Nat., 1815, 88, shortened form; same type.

Les Mustèles Cuvier, Règne Anim., ed. 1, II, 1817, 215 (*tricirrhatus* = *mediterraneus*).

Mustela Oken, Isis, 1817 (for *les Mustèles*, not *Mustela* L., a genus of weasels).

Onos Risso, Hist. Europ. Mérid., III, 1826, 214 (*Gadus mustela* Bloch).

Mustela Stark, Elem. Nat. Hist., I, 1828, 425; after *les Mustèles*.

Motella Cuvier, Règne Anim., ed. 2, II, 1829, 334 (*Gadus mustela* L.); substitute for *Mustela* Cuvier.

Onus Günther, corrected spelling; not of Rafinesque.

1637. *Gaidropsarus ensis* (Reinhardt). *Rockling; Three-bearded rockling.*

New York to Greenland.

Motella ensis Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 116, 128, Greenland.

Onus rufus Gill, Proc. U. S. Nat. Mus., VI, 1883, 259, Gulf Stream.

1638. *Gaidropsarus septentrionalis* (Collett).

Coasts of Norway and Greenland.

Motella septentrionalis Collett, Ann. Mag. Nat. Hist., 4th ser., XV, 1875, 82, Lofoten, Florø, Bergen, coast of Norway and Bodø, lat. 67° 15' N., in 30 fathoms.

Genus 529. CILIATA Couch. *Five-bearded rocklings.*

Ciliata Couch, Mag. Nat. Hist., V, 1822, 15 (*C. glauca* Couch, the "mackerel midge," larva of *Gadus mustela* L.)

Couchia Thompson, Nat. Hist. Ireland, IV, 1856, 288 (*C. minor* Thompson = larva of *Gadus mustela* L.).

Molvella Kaup, Archiv Natur., XXIV, 1858, I, 90 (*Molvella borealis* Kaup = *Gadus mustela* L.).

1639. *Ciliata argentata* (Reinhardt). *Silvery rockling; Mackerel midge; Five-bearded rockling.*

Coasts of Greenland, south to Farøe and Bear Islands.

Motella argentata Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 116, 128, Greenland.

Motella reinhardti Krøyer, in Collett, Forhandl. Vidensk. Selsk. Chr., No. 14, 1878, 83, Greenland.

Genus 530. ENCHELYOPUS²⁸ Bloch and Schneider. *Four-bearded rocklings*.
Enchelyopus Bloch and Schneider, Syst. Ichth., 1801, 50 (*Gadus cimbricus* L.); not of Gronow, which is nonbinomial.
Rhinonemus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 241 (*Gadus cimbricus* L.).

1640. *Enchelyopus cimbricus* (Linnaeus). *Four-bearded rockling*.
 North Atlantic on both coasts, south in deep water to the Gulf Stream; common in Massachusetts Bay.
Gadus cimbricus Linnaeus, Syst. Nat., ed. 12, I, 1766, 440, Atlantic Ocean; Scania.
Motella caudacuta Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 5, Long Point, Provincetown, Mass.

Family 126. GADIDÆ. Codfishes

Genus 531. BOREOGADUS Günther.

Boreogadus Günther, Cat., IV, 1862, 336 (*Gadus fabricii* Richardson = *Gadus saida* Lepechin).

1641. *Boreogadus saida* (Lepechin).
 Arctic seas, Greenland to Alaska and northern Russia; common in the far north.
Gadus saida Lepechin, Nov. Comm. Acad. Sci. Petropol., XVIII, 1774, 512, Russia.
Merlangus polaris Sabine, Suppl. Parry's Voy., CCXI, 1824, Baffin's Bay.
Gadus fabricii Richardson, Fauna Bor.-Amer., III, 1836, 245, northern bays of Greenland.
Gadus agilis Reinhardt, Danske Vidensk. Selsk. Afhandl., VII, 1838, 126, Greenland.

Genus 532. POLLACHIUS Nilsson. *Pollacks*.

Pollachius Nilsson, in Bonaparte, Cat. Metod. Pesci. Europ., 1846, 45 (*Gadus pollachius* Linnaeus).

1642. *Pollachius virens* (Linnaeus). *Pollack; Coalfish; Green cod*.
 North Atlantic; common northward on both coasts, south to Cape Cod.
Gadus virens Linnaeus, Syst. Nat., ed. X, 1758, 253, oceans of Europe.
Gadus carbonarius Linnaeus, loc. cit., 254, seas of Europe.
Gadus colinus Lacépède, Hist. Nat. Poiss., II, 1800, 416, England, etc.
Gadus purpureus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 370, New York.
Merlangus leptocephalus DeKay, New York Fauna: Fishes, 1842, 288, pl. 45, fig. 146, Long Island.

Genus 533. THERAGRA Lucas.

Theragra Lucas, in Jordan and Gilbert, Rept. Fur-seal Invest., III, 1896, 486 (*Gadus chalcogrammus* Pallas).

1643. *Theragra chalcogramma* (Pallas). *Alaska pollack*.
 North Pacific, south to Sitka.
Gadus chalcogrammus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 198, Kamchatka.
Gadus periscopus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 30, Unalaska.

1644. *Theragra fucensis* (Jordan and Gilbert). *Wall-eyed pollack; Puget Sound pollack*.
 Puget Sound.
Pollachius chalcogrammus fucensis Jordan and Gilbert, Proc. U. S. Nat. Mus., XVI, 1893, 315, Puget Sound at Tacoma, Wash.

Genus 534. ELEGINUS Fischer.

Eleginus Fischer, Mem. Soc. Nat. Moscow, 2d ed., V, 1813, 4, 252-257 (*Gadus nawaga* Kölreuter).

²⁸ The name *Enchelyopus* ("eels without ventral fins") has been used variously since first proposed by Gronow; Gronow applied the name to *Zoarces*, Klein to *Trichiurus*; as both these writers were nonbinomial we recognize its first binomial use, that of Schneider, for *Gadus cimbricus* L.

1645. **Eleginus nawaga** (Kölreuter). *Wachna cod*.
 Puget Sound to Bering Sea.
Gadus nawaga Kölreuter, Nov. Com. Acad. Sci. Petropol., XIV, 1770, 484, pl. 12, coast of northern Russia.
Gadus gracilis Tilesius, Mém. Acad. Sci. Imp. St. Petersb., II, 1810, 354, Kamchatka.
Gadus wachna Pallas, Zoogr. Rosso.-Asiat., III, 1811, 182, Kamchatka.
- Genus 535. **MICROGADUS** Gill. *Tomcods*.
Microgadus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 69 (*Gadus proximus* Girard).
1646. **Microgadus tomcod** (Walbaum). *Tomcod*; *Frostfish*.
 East coast of North America, from Virginia to Labrador.
Gadus tomcod Walbaum, Artedi Pisc., III, 1792, 133, Long Island; after Schöpfung.
Gadus frost Walbaum, loc. cit., 134, North America.
Gadus tomcodus pruinosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 269, New York.
Gadus tomcodus fuscus Mitchill, loc. cit., 369, New York.
Gadus tomcodus luteus Mitchill, loc. cit., 369, New York.
Gadus tomcodus mixtus Mitchill, loc. cit., 369, New York.
Gadus polymorphus Mitchill, loc. cit., 369, New York.
Morrhua americana Storer, Rept. Fish. Mass., 1839, 120, coast of Massachusetts.
1647. **Microgadus proximus** (Girard). *California tomcod*.
 West coast of North America, from Monterey to Alaska.
Gadus proximus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 141, San Francisco.
Morrhua californica Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 8, San Francisco.
- Genus 536. **GADUS** Linnæus. *Codfishes*.
Gadus (Artedi) Linnæus, Syst. Nat., ed. X, 1758, 251 (*Gadus morrhua* L.).
Morrhua Oken, Isis, 1817, 1182, after "Les Morrhues" Cuvier (*Gadus morrhua* L.).
Cephus Swainson, Nat. Hist. Class. Fish., II, 1839, 300 (*Gadus macrocephalus* Tilesius).
Cerdo Gistel, Thierreich, X, 1848 (*Gadus morrhua* L., by implication).
1648. **Gadus morrhua** Linnæus. *Common codfish*.
 North Atlantic, south to Virginia.
Gadus callarias Linnæus, Syst. Nat., ed. X, 1758, 252, Baltic Sea and ocean off Europe; young.
Gadus morrhua Linnæus, loc. cit., seas of Europe; name preferred by first reviser.
Gadus vertagus Walbaum, Artedi Pisc., III, 1792, 143; after Jägershen.
Gadus heteroglossus Walbaum, loc. cit., 144; after Hornbogen of Klein.
Gadus arenosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 368, New York.
Gadus rupestris Mitchill, loc. cit., 368, New York.
Gadus nanus Faber, Natur. Fische Islands, 1829, 112, 182, Iceland.
1649. **Gadus macrocephalus** Tilesius. *Alaska codfish*; *Pacific cod*.
 Bering Sea, south to coast of Oregon.
Gadus macrocephalus Tilesius, Mem. Acad. Sci. St. Petersb., II, 1810, 360, Bering Sea.
Gadus pygmaeus Pallas, Zoogr. Ross.-Asiat., III, 1811, 199, Kamchatka.
Gadus auratus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 30, Unalaska.
1650. **Gadus ogac** Richardson. *Greenland codfish*; *Ogac*.
 Greenland; Godhavn.
Gadus ogac Richardson, Fauna Bor.-Amer., III, 1836, 246, Greenland.
- Genus 537. **MELANOGRAMMUS** Gill.
Melanogrammus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 280 (*Gadus æglefinus* Linnæus).
Æglefinus Malm, Göteborg och Bohusläns Fauna, 1877, 481 (*Gadus æglefinus* L. = *Æglefinus linnæi* Malm).

1651. *Melanogrammus æglefinus* (Linnæus). *Haddock*.

North Atlantic, on both coasts.

Gadus æglefinus Linnæus, Syst. Nat., ed. X, 1758, 251, ocean off Europe.

Morrhua punctatus Fleming, Brit. Anim., 1828, 191.

Æglefinus linnæi Malm, Göteborg Bohusläns Fauna, 1877, 481.

Genus 538. *LEPIDION* Swainson.

Lepidion Swainson, Nat. Hist. Class'n Anim., I, 1838, 318, and II, 1839, 300 (*L. rubescens* Swainson = *Gadus lepidion* Risso); not

Lepidia Savigny, 1817,

Haloporphyrus Günther, Cat., IV, 1862, 358 (*Gadus lepidion* Risso).

1652. *Lepidion verecundum* Jordan and Cramer.

Off Pacific coast of Mexico.

Lepidion verecundum Jordan and Cramer, Proc. U. S. Nat. Mus., XIX, 1896, 456, Clarion Island, Mexico.

Genus 539. *MICROLEPIDIDIUM* Garman.

Microlepidium Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 180, (*M. grandiceps* Garman).

1653. *Microlepidium grandiceps* Garman.

Gulf of California in deep water.

Microlepidium grandiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 181, Pl. XLIII, Gulf of California.

Genus 540. *ANTIMORA* Günther.

Antimora Günther, Ann. Mag. Nat. Hist., 5th ser., II, 1878, 18 (*A. rostrata* Günther).

1654. *Antimora viola* (Goode and Bean).

Banks of Newfoundland and southward.

Haloporphyrus viola Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 257, LaHave Bank in 400 fathoms.

1655. *Antimora microlepis* Bean.

Pacific Ocean, off Queen Charlotte Islands.

Antimora microlepis Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38, lat. 51° 00' 23" N., long. 130° 34' W., off Cape St. James, Queen Charlotte Islands, in 875 fathoms.

1656. *Antimora rhina* Garman.

Off Panama in deep water.

Antimora rhina Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 185, off Bay of Panama.

Genus 541. *GADELLA* Lowe.

Gadella Lowe, Proc. Zool. Soc. Lond., 1843, 91 (*G. gracilis* Lowe).

Uraleptus Costa, Wiegmann's Archiv Naturgesch., 1858, 87 (*Gadus maraldi* Risso).

1657. *Gadella maraldi* (Risso).

Nice; Madeira; Naples and Catania; also off island of Nevis in the West Indies.

Gadus maraldi Risso, Ichth. Nice, 1810, 123, pl. 6, fig. 13, Nice.

Gadella gracilis Lowe, Proc. Zool. Soc. Lond., 1843, 91, Madeira.

Genus 542. *LOTELLA* Kaup.

Lotella Kaup, Wiegmann's Archiv, 1858, 88 (*Lota phycis* Temminck and Schlegel).

1658. *Lotella maxillaris* Bean.

Gulf Stream.

Lotella maxillaris Bean, Proc. U. S. Nat. Mus., VII, 1884, 241, lat. 39° 55' N., long. 70° 28' W., in 396 fathoms.

Genus 543. *PHYSICULUS* Kaup.

Physiculus Kaup, Wiegmann's Archiv, 1858, 88 (*P. dalwigkii* Kaup).

1659. *Physiculus kaupi* Poey.

Cuba.

Physiculus kaupi Poey, Repertorio, I, 1865, 186, Matanzas, Cuba.

1660. *Physiculus fulvus* Bean.
Caribbean Sea and north in the Gulf Stream to latitude 35°.
Physiculus fulvus Bean, Proc. U. S. Nat. Mus., VII, 1884, 240, lat. 40° 1' N., long. 69° 56' W., 79 fathoms.
1661. *Physiculus nematopus* Gilbert.
On both coasts of Lower California, in deep water.
Physiculus nematopus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 114, on both coasts of Lower California, at Albatross stations 2997, 3011, 3015, and 3016, in 71 to 221 fathoms.
1662. *Physiculus rastrelliger* Gilbert.
Off Panama to southern California in deep water.
Physiculus rastrelliger Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 113, coast of southern California.
1663. *Physiculus longipes* Garman.
Off Panama in deep water.
Physiculus longipes Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 188, Pl. XLII, off Bay of Panama.
- Genus 544. *LOTA* Cuvier. *Burbot*.
Les Lottes Cuvier, Règne Anim., ed. 1, II, 1817, 215 (*Gadus lota* L.).
Lota Oken, Isis, 1817, 1182 (*Gadus lota* L.).
1664. *Lota maculosa* (LeSueur). *Burbot*; *Lake lawyer*; *Ling*; *Alekey trout*; *Eel pout* and *Long-tailed cat* (trade names at Sandusky, Ohio); *Mud blower*.
Rivers and lakes of New England and the Great Lakes region, north to Arctic seas, and west to the upper Missouri and Columbia River Basins.
Gadus maculosus LeSueur, Jour. Acad. Nat. Sci. Phila., I, 1817, 83, Lake Erie.
Gadus compressus LeSueur, loc. cit., 84, Connecticut River.
Gadus lacustris Mitchell, Amer. Month. Mag., II, 1818, 244, Sebago Lake, Maine; not of Walbaum.
Molva huntia LeSueur, Mém. Mus. Hist. Nat. Paris, V, 1819, 161, Connecticut River.
Lota inornata DeKay, New York Fauna: Fishes, 1842, 283, pl. 45, fig. 145, Hudson River, Lansingburgh, N. Y.
Lota brosmiana Storer, Bost. Jour. Nat. Hist., IV, 1841, 58, pl. 5, fig. 1, Lake Winnipissiopee, N. H.
- Genus 545. *MOLVA* Fleming. *Lings*.
Molva Fleming, Hist. Brit. Anim., 1828, 192 (*Gadus molva* L. = *Molva vulgaris* Fleming).
Molva Nilsson, Scandinavian Fauna, IV, 1832, 573 (*Gadus molva* L.).
1665. *Molva molva* (Linnæus). *Ling*; *Iverksoak*.
Spitzbergen to Gulf of Gascony, Arcachon; San Juan de Luz; Iceland; Greenland; Faroe Islands.
Gadus molva Linnæus, Syst. Nat., ed. X, 1758, 254, seas of Europe.
- Genus 546. *PHYCIS* Röse. *Codlings*.
Phycis Röse, Synonymia, etc., ed. II, 1793 (*Φυξίς* Aristotle = *Phycis tinca* Schroeder); not *Phycis* Fabricius, 1798, a genus of insects.
Phycis Rafinesque, Amer. Month. Mag., 1818, 242 (*Phycis marginatus* Rafinesque = *Blennius chisso* Walbaum).
1666. *Phycis earlli* Bean.
Charleston, S. C.
Phycis earlli Bean, Proc. U. S. Nat. Mus., III, 1880, 69, Charleston, S. C.
1667. *Phycis cirratus* Goode and Bean.
Deep waters of the Gulf of Mexico.
Phycis cirratus Goode and Bean, Oceanic Ichth., 1896, 358, Gulf of Mexico, at lat. 29° 03' 15" N., long. 88° 16' W.

Genus 547. UROPHYCIS Gill.

Phycis Bloch and Schneider, Syst. Ichth., 1801, 56 (*tinca*=*blennioides*), not *Phycis* Fabricius, 1798, a genus of Lepidoptera.

Urophycis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 240 (*Blennius regius* Walbaum).

Emphycus Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2552 (*Gadus tenuis* Mitchill).

1668. Urophycis floridanus (Bean and Dresel).

Pensacola, Fla.

Phycis floridanus Bean and Dresel, Proc. Biol. Soc. Wash., II, 1884, 100, Pensacola, Fla.

1669. Urophycis regius (Walbaum). Spotted codling; Spotted hake.

North Atlantic, south to Cape Fear.

Blennius regius Walbaum, Artedi Pisc., III, 1792, 186; after Schöpf.

Enchelyopus regalis Bloch and Schneider, Syst. Ichth., 1801, 53; after Schöpf.

Gadus punctatus Mitchill, Trans., Lit. Phil. Soc. N. Y., I, 1815, 372, New York.

1670. Urophycis tenuis (Mitchill). Codling; Squirrel hake; Hake; Ling, Thimble-eyed ling; White hake; Old English hake.

North Atlantic, south to Virginia; abundant northward.

Gadus tenuis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 371, New York.

Phycis dekayi Kaup, Wiegmann's Archiv, 1858, Pt. I, 89, North America.

?*Phycis rostratus* Günther, Cat., IV, 1862, 353, no locality.

1671. Urophycis chuss (Walbaum). Codling; Squirrel hake; Thimble-eyed ling; Old English hake; Chuss; Fork-beard; Red hake.

Atlantic coast, chiefly northward.

Blennius chuss Walbaum, Artedi Pisc., III, 1792, 186, Long Island; after Schöpf.

Enchelyopus americanus Bloch and Schneider, Syst. Ichth., 1801, 53; after Schöpf.

Gadus longipes Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 372, pl. 1, fig. 4, New York.

Phycis marginatus Rafinesque, Amer. Month. Mag., II, 1818, 205, Point Judith, R. I.

1672. Urophycis chesteri (Goode and Bean).

Off Massachusetts, in deep water; abundant.

Phycis chesteri Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 256, off Cape Ann, in 140 fathoms.

Genus 548. LÆMONEMA Günther.

Læmonema Günther, Cat., IV, 1862, 356 (*Phycis yarrellii* Lowe).

1673. Læmonema barbatulum Goode and Bean.

Gulf Stream.

Læmonema barbatula Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, No. 5, 204. Gulf Stream, in lat. 32° 43' 25" N., long. 77° 20' 30" W., in 230 fathoms, and 38° 35' N., 73° 13' W.

1674. Læmonema melanurum Goode and Bean.

Caribbean Sea, north to New York.

Læmonema melanurum Goode and Bean, Oceanic Ichth., 1895, 363, lat. 30° 44' N., long. 79° 26' W., in 440 fathoms.

1675. Læmonema gracillipes Garman.

Galapagos Islands to Bay of Panama in deep water.

Læmonema gracillipes Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 187, Pl. XLII; off Galapagos Islands.

Genus 549. BROSME Oken. Cusk.

Brosme Oken, Isis, 1817, 1182 (*Gadus brosmæ* Müller); after Les Brosmes Cuvier.

Brosmerus LeSueur, Mém. Mus. Hist. Nat. Paris, 1819, 158, Pl. XVI (*Brosmerus slavesny* LeSueur=*Gadus brosmæ* Müller).

Brosmius Cuvier, Règne Anim., ed. 2, II, 1829, 354 (*Gadus brosmæ* Müller).

1676. *Brosme brosme* (Müller). *Cusk; European cusk; Nejorpallujak; Torsk; Tusk.*
 Polar regions, south to Cape Cod.
Gadus brosme Müller, Prodr. Zool. Dan., 1776, 41, Denmark.
Gadus torsk Bonnaterre, Encycl. Meth. Ichth., 1788, 51, Sundmer, Norway; after Ström.
Brosmerus flavescens LeSueur, Mém., Mus. Hist. Nat. Paris, V, 1819, 158, Banks of Newfoundland; Marblehead, Mass.

Family 127. MERLUCCIIDÆ. Hakes

Genus 550. MERLUCCIUS Rafinesque. Hakes.

- Merluccius* Rafinesque, Caratteri, 1810, 25 (*M. smiridus* Rafinesque = *Gadus merluccius* L.).
Onus Rafinesque, Indice, 1810, 12; substitute for *Merluccius*.
Merlangus Rafinesque, loc. cit., 167, another substitute for *Merluccius*.
Merlus Gay, in Guichenot, Pesces de Chile, II, 1848, 238 (*Merlus gayi* Guichenot).
Epicopus Günther, Cat., II, 1860, 248 (*Merlus gayi* Guichenot).
1677. *Merluccius merluccius* (Linnæus). *European hake.*
 Coasts of Europe, straying to Greenland.
Gadus merluccius Linnæus, Syst. Nat., ed. X, 1758, 254, no locality; Europe.
Gadus ruber Lacépède, Hist. Nat. Poiss., V, 1803, 673, Scotland; Dieppe.
Gadus merlus Risso, Ichth. Nice, 1810, 122, Nice; after Linnæus.
Onus riali Rafinesque, Indice, 1810, 12, 67; substitute for *Gadus merluccius*.
Merlucius esculentus Risso, Europ. Mérid., III, 1826, 220, Nice.
Merluccius ambiguus Lowe, Proc. Zool. Soc. Lond., 1840, 37, Madeira.
Merlucius lanatus Gronow, Cat. Fishes, ed. Gray, 1854, 130, Mediterranean.
1678. *Merluccius bilinearis* (Mitchill). *Silver hake; New England hake; Whiting; Old England hake; Silverfish; American hake; Stockfish.*
 Coast of New York and northward.
Stomodon bilinearis Mitchill, Rept. Fish. N. Y., 1814, 7, New York.
Gadus albidus Mitchill, Jour. Acad. Nat. Sci. Phila., I, 1817, 409, New York.
1679. *Merluccius productus* (Ayres).
 Pacific coast, from San Diego northward to Washington.
Merlangus productus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 64 (65), no locality given; types from San Francisco market, probably from San Francisco Bay.
Homalopomus trowbridgii Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 132, Astoria, Oreg.
1680. *Merluccius angustimanus* Garman.
 Off Panama, in deep water.
Merluccius angustimanus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 183, Pl. XLI, fig. 1, off Bay of Panama.

Order GG. SALMOPERCÆ

Family 128. PERCOPSIDÆ. Sand rollers; Trout perch

Genus 551. PERCOPSIS Agassiz.

- Percopsis* Agassiz, Lake Superior, 1850, 284 (*P. guttatus* Agassiz = *Salmo omiscomaycus* Walbaum).
Salmoperca Thompson, App. Hist. Vermont, 1853, 33 (*S. pellucida* Thompson = *Salmo omiscomaycus* Walbaum).

1681. *Percopsis omiscomaycus* (Walbaum). *Sand roller; Trout perch.*
 Lake Champlain and Delaware River to Ohio River, Kansas, and northward; Great Lakes; Hudson Bay; Red River of the North; Saskatchewan River.
Salmo omiscomaycus Walbaum, Artedi Pisc., 1792, 65, Hudson Bay.
Percopsis guttatus Agassiz, Lake Superior, 1850, 286, Lake Superior.
Salmoperca pellucida Thompson, App. Hist. Vermont, 1853, 33, Lake Champlain.
Percopsis hammondii Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 151, Kansas.
- Genus 552. **COLUMBIA** Eigenmann and Eigenmann.
Columbia Eigenmann and Eigenmann, Science, XX, Oct. 21, 1892, 233
 (*C. transmontana* Eigenmann and Eigenmann).
1682. *Columbia transmontana* Eigenmann and Eigenmann.
 Columbia River Basin; Umatilla and Wallula Rivers.
Columbia transmontana Eigenmann and Eigenmann, Science, XX, 1892, 233, mouth of Umatilla River, Oreg.

Order HH. XENARCHI

Family 129. APHREDODERIDÆ. Pirate perches

- Genus 553. **APHREDODERUS** LeSueur. *Pirate perches.*
Aphredoderus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 329 (445), (*A. gibbosus* LeSueur = *Scolopsis sayanus* Gilliams).
Sternotremia Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 39 (*S. isolepis* Nelson); young with the vent posterior.
Asternotremia Nelson, in Jordan, Bull. U. S. Nat. Mus., X, 1877, 51.
Aphododerus, attempted correction.
1683. *Aphredoderus sayanus* (Gilliams). *Pirate perch; Pirate; Mud perch.*
 From New York in coastwise streams to Texas; also in the Mississippi Basin, north to Michigan; abundant in sluggish waters.
Scolopsis sayanus Gilliams, Jour. Acad. Nat. Sci. Phila., IV, 1824, 81, near Philadelphia.
Aphredoderus gibbosus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 331 (448), Lake Pontchartrain, La.
Sternotremia isolepis Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 39, Calumet River, Ill.; young with vent posterior.
Aphododerus cookianus Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 60, Sawyers Creek, Kendallville, Ind.
Asternotremia Jordan, Bull. U. S. Nat. Mus., X, 1877, 52, Flint River, Ga.

Order II. ALLOTRIOGNATHI

Suborder HISTICHTHYES

Family 130. LOPHOTIDÆ

- Genus 554. **LOPHOTES** Giorna.
Lophotes Giorna, Mém. Acad. Sci. Torino, XVI, 1805, 19 (*L. cepedianus* Giorna).
Leptopus Rafinesque, Specchio Scienze Palermo, I, 1814, 16 (*L. peregrinus* Rafinesque = *Lophotes cepedianus* Giorna).
Podoleptus Rafinesque, Anal. Nat., 1815, 93; a substitute for *Leptopus*; same type.
1684. *Lophotes cepedianus* Giorna.
 Open seas north to Long Beach, Calif. (W. F. Thompson), and to Japan, if *Lophotes capellei* is the same.
Lophotes cepedianus Giorna, Mém. Acad. Sci. Torino, XVI, 1803, 19, Mediterranean.
Leptopus peregrinus Rafinesque, Specchio Scienze Palermo, I, 1814, 16, Palermo.
 ?*Lophotes capellei* Schlegel, Fauna Japonica, 1845, 132, pl. 71, Japan.

Suborder TÆNIOSOMI

Family 131. TRACHIPTERIDÆ. King of the herrings

Genus 555. TRACHIPTERUS Gouan.

Trachipterus Gouan, Hist. Nat. Poiss., 1770, 103 (*T. gouani* Gouan = *Cephola trachiptera* Gmelin).

Trachipterus of authors; corrected spelling.

Bogmarus Schneider, Syst. Ichth., 1801, 518 (*B. islandicus* Schneider = *Trachipterus arcticus*).

Vogmarus Reid, Ann. Mag. Nat. Hist., III, 1849, 456 (*B. islandicus* Schneider); substitute name as the Danish name is *Vaagmær*.

1685. *Trachipterus arcticus* (Brünnich). Dealfish; *Vaagmær*.

Arctic Sea, Iceland to Norway.

Gymnogaster arcticus Brünnich, Nya. Handl., Dansk. Vidensk. Selsk. Skrifter, III, 1788, 408, Tab. B, figs. 1-3.

Bogmarus islandicus Schneider, Syst. Ichth., 1801, 518, Tab. 101.

Trachipterus bogmarus Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1827?, 346.

Trachipterus vogmarus Reinhardt, Dansk. Vidensk. Selsk. Skrifter, VII, 1838, 71, with fig.

1686. *Trachipterus rex-salmonorum* Jordan and Gilbert. King of the salmon.

Off coast of California.

Trachipterus rex-salmonorum Jordan and Gilbert, Proc. Calif. Acad. Sci., 2d ser., IV, 1894, 144, pl. 9, open sea, outside Bay of San Francisco.

Trachipterus seleniris Snyder, Proc. Acad. Nat. Sci. Phila., LX, 1908, 319, Monterey; adult form.

1687. *Trachipterus trachyurus* Poey.

Cuba.

Trachipterus trachyurus Poey, Memorias, II, 1861, 420, Cuba.

Suborder ATELAXIA

Family 132. STYLEPHORIDÆ

Genus 556. STYLEPHORUS Shaw.

Stylephorus Shaw, Trans. Linn. Soc. Lond., I, 1791, 90 (*S. chordatus* Shaw).

1688. *Stylephorus chordatus* Shaw.

Open sea, Atlantic; very rare.

Stylephorus chordatus Shaw, Trans., Linn. Soc. Lond., I, 1791, 90, pl. 6, Atlantic, between Cuba and Martinique.

Order JJ. SELENICHTHYES

Family 133. LAMPRIDÆ. Opah; Moonfish

Genus 557. LAMPRIS Retzius.

Lampris Retzius, Vetensk. Akad. Nya Handl., XX, 1799, 91 (*Zeus guttatus* Brünnich = *Zeus regius* Bonnaterre).

Chrysotosus Lacépède, Hist. Nat. Poiss., III, 1803 (*Zeus luna* Gmelin). *Echemythes* Gistel, Thierreich, X, 1848 (*Zeus luna* Gmelin).

1689. *Lampris regius* (Bonnaterre). Mariposa; Opah; Moonfish; San Pedro fish; Cravo; Jerusalem haddock; Glancefish; Gudlax; Poisson lune.

Open seas, Atlantic and Pacific; Madeira; Newfoundland; Maine; Cuba; Monterey; Hawaii; Japan; recently taken off San Pedro.

*Zeus regius*³⁹ Bonnaterre, Encycl. Meth. Ichth., 1788, 72, pl. 39, Torbay, England.

Zeus guttatus Brünnich, Danske Skrifter, III, 1788, 403, Elsinore, Denmark.

Zeus luna Gmelin, Syst. Nat., ed. XIII, 1789, 1225, Normandy.

³⁹ The name *regius* certainly has priority over *luna* and probably over *guttatus* also.

Zeus stroemii Walbaum, Artedi Pisc., ed. 2, 1792, 398, Norway; after Ström.

Scomber gunneri Bloch and Schneider, Syst. Ichth., 1801, 38, Throndhjem.

Zeus imperialis Shaw, Nat. Misc., IV, 1803, pl. 140, Torbay; after Pennant.

Zeus opah Shaw, Gen. Zool., IV, 1803, 287, Torbay; after Pennant.

Lampris lauta Lowe, Fishes Madeira, 1843, 27, Madeira.

Order KK. HETEROSOMATA. Flounders; Flatfishes

Family 134. BOTHIDÆ

Genus 558. LOPHOPSETTA Gill. *Windowpanes*.

Lophopsetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 220 (*Pleuronectes maculatus* Mitchill).

1690. *Lophopsetta maculata* (Mitchill). *Windowpane*.

Atlantic coast of United States, from Casco Bay to South Carolina; common.

Pleuronectes maculatus Mitchill, Rept. in part, Fish. N. Y., 1814, 9, New York.

Pleuronectes aquosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 389, pl. 2, fig. 3, New York.

Genus 559. PLATOPHRYS Swainson.

Platophrys Swainson, Nat. Hist. Fish., Reptiles and Amphib., II, 1839, 302 (*Pleuronectes ocellatus* Spix and Agassiz).

Peloria Cocco, Intern. Alcuni Pesci, etc., 1844, 21 (*P. heckeli* Cocco). *Coccolus* Bonaparte loc. cit., 21 (*C. annectens* Cocco, a larva of *Platophrys*).

Bothus Bonaparte, Cat. Metod., 1846, 49 (*podas*); not of Rafinesque. *Rhomboidichthys* Bleeker, Act. Soc. Sci. Indo-Neder., I, 1856, 67 (*R. myriaster* Bleeker).

1691. *Platophrys spinosus* (Poey).

West Indies.

Rhomboidichthys spinosus Poey, Synopsis, 1868, 409, Cuba.

1692. *Platophrys constellatus* Jordan.

Galapagos Islands.

Platophrys constellatus Jordan, in Jordan and Goss, Rept. U. S. Fish Com., XIV, 1886 (1889), 266, James Island, Galapagos Islands.

1693. *Platophrys ocellatus* (Agassiz).

Tropical America; sandy shores from Long Island to Rio Janeiro.

Rhombus ocellatus Agassiz, in Spix, Pisc. Brasil., 1829, 85, pl. 46, Brazil.

Rhombus bahianus Castelnau, Anim. Amer. Sud, 1855, Bahia.

Platophrys nebularis Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 31, Key West, Fla.

1694. *Platophrys maculifer* (Poey).

West Indies.

?*Pleuronectes maculiferus* Poey, Memorias, II, 1861, 316, Cienfuegos, Cuba.

1695. *Platophrys ellipticus* (Poey).

West Indies.

Pleuronectes ellipticus Poey, Memorias, II, 1861, 315, Cuba.

1696. *Platophrys lunatus* (Linnaeus). *Peacock flounder*.

West Indies.

Solea lunata et punctata (the sole) Catesby, Nat. Hist. Carolinas, 1725, Tab. 27, Bahamas.

Pleuronectes lunatus Linnaeus, Syst. Nat., ed. X, 1758, 269, Bahamas; based on Catesby and the various copyists.

Pleuronectes argus Bloch, Ichthyologia, 1783, Tab. 48, Martinique; after Plumier.

?*Pleuronectes surinamensis* Bloch and Schneider, Syst. Ichth., 1801, 156, Surinam; *satis parva et glabra*.

1697. *Platophrys leopardinus* (Günther).

Gulf of California.

Rhomboidichthys leopardinus Günther, Cat., IV, 1862, 434, locality unknown.

Platophrys leopardinus Jordan, Proc. U. S. Nat. Mus., VII, 1884, 260, specimen from Guaymas, Sonora, Mexico.

Genus 560. SYACIUM Ranzani.

Syacium Ranzani, Nov. Spec. Pisc., 1840, 20 (*S. micrurum* Ranzani).

Hemirhombus Bleeker, Versl. Akad. Amsterdam, XIII, 1862, 425 (*H. guineensis* Bleeker).

Aramaca Jordan and Goss, in Jordan, Cat. Fish. N. Amer., 1885, 133 (*Citharichthys pætilus* Jordan and Gilbert = *Pleuronectes aramaca* Dönnedorf = *Pleuronectes papillosus* Linnæus).

1698. *Syacium papillosum* (Linnæus).

West Indies.

Aramaca Marcgrave, Hist. Pisc. Brasil., 1648, 181, Brazil.

Pleuronectes papillosus Linnæus, Syst. Nat., ed. X, 1758, 271, Brazil; based on Marcgrave.

Rhombus soleæformis Agassiz, in Spix, Pisc. Brasil., 1829, 86, Tab. 47, Atlantic Ocean.

1699. *Syacium micrurum* Ranzani.

West Indies; Key West to Rio Janeiro.

Syacium micrurum Ranzani, Nov. Spec. Pisc. Diss. Sec., 1840, 20, pl. 5, Brazil.

Hippoglossus ocellatus Poey, Memorias, II, 1861, 314, Cuba.

Hemirhombus aramaca Günther, Cat., IV, 1862, 42, Cuba; Jamaica; not *Rhombus aramaca* Cuvier.

Citharichthys æthalion Jordan, Proc. U. S. Nat. Mus., IX, 1886, 52, Habana.

1700. *Syacium latifrons* (Jordan and Gilbert).

Pacific coast of tropical America; Panama.

Citharichthys latifrons Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 334, Panama.

1701. *Syacium ovale* (Günther).

Pacific coast of tropical America; Mazatlan to Panama.

Hemirhombus ocalis Günther, Proc. Zool. Soc. Lond., 1864, 154, Panama.

Genus 561. CITHARICHTHYS Bleeker. Whiffs.

Citharichthys Bleeker, Versl. Akad. Amsterd., XIII, 1862, 427 (*C. cayennensis* Bleeker = *C. spilopterus* Günther).

Orthopsetta Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Psettichthys sordidus* Girard).

Metonops Gill, loc. cit., XVI, 1864, 198 (*M. cooperi* Gill = *Psettichthys sordidus* Girard).

Subgenus ORTHOPSETTA Gill.**1702. *Citharichthys sordidus* (Girard).**

Pacific coast of North America, in water of moderate depth from British Columbia to Lower California.

Psettichthys sordidus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 142, San Francisco; Tomales Bay.

Metaponops cooperi Gill, loc. cit., XVI, 1864, 198, Santa Barbara; shriveled specimen.

1703. *Citharichthys fragilis* Gilbert.

Gulf of California.

Citharichthys fragilis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 120, Gulf of California, east coast of Lower California.

1704. *Citharichthys xanthostigmus* Gilbert.

Magdalena Bay, west coast of Lower California to Hermosa Beach, southern California, and in Gulf of California.

Citharichthys xanthostigma Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 120, Gulf of California, west coast of Lower California, and Magdalena Bay.

1705. *Citharichthys stigmæus* Jordan and Gilbert.
Coast of southern California.
Citharichthys stigmæus Jordan and Gilbert, Proc. U. S. Nat. Mus., V,
1882, 410, 411, Santa Barbara, Calif.
- Subgenus CITHARICHTHYS.
1706. *Citharichthys dinoceros* Goode and Bean.
Deep waters of Gulf of Mexico.
Citharichthys dinoceros Goode and Bean, Bull. Mus. Comp. Zool., XII,
No. 5, 157, off Martinique, St. Lucia, and Barbados.
1707. *Citharichthys platophrys* Gilbert.
Southwest of Panama; one specimen known.
Citharichthys platophrys Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
454, Albatross station 2799, southwest of Panama.
1708. *Citharichthys arctifrons* Goode.
Deep waters of Gulf Stream.
Citharichthys arctifrons Goode, Proc. U. S. Nat. Mus., III, 1880, 341,
472, Gulf Stream off southern coast of New England.
1709. *Citharichthys unicornis* Goode.
Deep waters of Gulf Stream.
Citharichthys unicornis Goode, Proc. U. S. Nat. Mus., III, 1880, 342,
Gulf Stream off southeast of New England.
1710. *Citharichthys uhleri* Jordan.
West Indies.
Citharichthys uhleri Jordan, Rept. U. S. Fish Com., XIV, 1886, 273,
Haiti.
1711. *Citharichthys macrops* Dresel.
South Atlantic and Gulf coasts of the United States.
Citharichthys macrops Dresel, Proc. U. S. Nat. Mus., VII, 1884, 539,
Pensacola, Fla.
1712. *Citharichthys spilopterus* Günther.
Both coasts of tropical America, north to New Jersey and Mazatlan.
Citharichthys spilopterus Günther, Cat., IV, 1862, 421, New Orleans,
San Domingo, Jamaica.
Citharichthys cayennensis Bleeker, Compt. Rend. Acad. Sci. Amsterdam,
XIII, 1862, 6, Cayenne, name only.
Citharichthys guatemalensis Bleeker, Nederl. Tijdschr. Dierk., 1864, 73,
Guatemala.
Hemirhombus fuscus Poey, Synopsis, 1868, 406, Habana.
1713. *Citharichthys arenaceus* Evermann and Marsh.
Porto Rico and Santo Domingo.
Citharichthys arenaceus Evermann and Marsh, Bull. U. S. Fish Com.,
XX, first part, 1900 (1902), 326, fig. 106, Mayaguez, Porto Rico.
1714. *Citharichthys gilberti* Jenkins and Evermann.
Pacific coast of tropical America, from Gulf of California to Panama.
Citharichthys gilberti Jenkins and Evermann, Proc. U. S. Nat. Mus.,
XI, 1888, 157, Guaymas, Mexico.
Citharichthys sumichrasti Jordan and Goss, Rept. U. S. Fish Com.,
XIV, 1886 (1889) 276, Rio Zanatenco, Chiapas, Mexico.
- Genus 562. ETROPUS Jordan and Gilbert.
Etropus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 364 (*E.*
crossotus Jordan and Gilbert).
1715. *Etropus microstomus* (Gill).
Coast of New Jersey.
Citharichthys microstomus Gill, Proc. Acad. Nat. Sci. Phila., XVI,
1864, 223, Beesleys Point, N. J.
1716. *Etropus micros* (Fowler).
Citharichthys micros Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1911,
200, with figure, Corsons Inlet, Cape May, N. J.

1717. *Etropus rimosus* Goode and Bean.

Gulf of Mexico.

Etropus rimosus Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 593, coast of Florida between Pensacola and Cedar Keys, in 21 fathoms.1718. *Etropus crossotus* Jordan and Gilbert.

Tropical America on both coasts, north to Guaymas, Mexico, and Cape Hatteras, N. C.

Etropus crossotus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 364, Mazatlan, Mexico.Genus 563. *PERISSIAS* Jordan and Evermann.*Perissias* Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2667 (*Platophrys tæniopterus* Gilbert).1719. *Perissias tæniopterus* (Gilbert).

Gulf of California and western coast of Lower California.

Platophrys tæniopterus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 118, Gulf of California north of La Paz, at Albatross station 2298, lat. 24° 51' N., long. 110° 39' W., in 40 fathoms.Genus 564. *ENGYOPHRYS* Jordan and Bollman.*Engyophrys* Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889 (1890), 176 (*E. sancti-laurentii* Jordan and Bollman).1720. *Engyophrys sancti-laurentii* Jordan and Bollman.

Pacific Ocean off coast of Colombia.

Engyophrys sancti-laurentii Jordan and Bollman, Proc., U. S. Nat. Mus., XII, 1889, 176, Pacific Ocean off coast of Colombia, at Albatross station 2805, 7° 56' N., 79° 41' 30'' W., and station 2795, lat. 7° 57' N., long. 78° 55' W., in 33 and 51 fathoms.Genus 565. *TRICHOPSETTA* Gill.*Trichopsetta* Gill, Proc. U. S. Nat. Mus., XI, 1888, 601 (*Arnoglossus ventralis* Goode and Bean).1721. *Trichopsetta ventralis* (Goode and Bean).

Gulf of Mexico, in deep water.

Citharichthys ventralis Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 592, Gulf of Mexico, Albatross station 2386, lat. 29° 15' N., long. 88° 6' W., in 60 fathoms.Genus 566. *MONOLENE* Goode.*Monolene* Goode, Proc., U. S. Nat. Mus., III, 1880, 338 (*M. sessilicauda* Goode).*Thyris* Goode, loc. cit., 344 (*T. pellucidus* Goode); larva of *Monolene*. *Delothyris* Goode, loc. cit., VI, 1883, 110; substitute for *Thyris*, preoccupied.1722. *Monolene sessilicauda* Goode.

Deep waters of the Gulf Stream.

Monolene sessilicauda Goode, Proc. U. S. Nat. Mus., III, 1880, 337, 338, deep sea south of New England.*Thyris pellucidus* Goode, loc. cit., 344, Gulf Stream off the coast of Rhode Island.1723. *Monolene atrimana* Goode and Bean.

Deep waters of the Caribbean Sea.

Monolene atrimana Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, 155, deep waters off Barbados.Genus 567. *CYCLOPSETTA* Gill.*Cyclopsetta* Gill, Proc. U. S. Nat. Mus., XI, 1888, 601 (*Hemirhombus fimbriatus* Goode and Bean).1724. *Cyclopsetta fimbriata* (Goode and Bean).

Deep waters of the Gulf of Mexico.

Hemirhombus fimbriatus Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 591, deep waters of the Gulf of Mexico, between the Mississippi Delta and Cedar Keys, Fla.

1725. *Cyclopsetta querna* (Jordan and Bollman).
Pacific coast of America, off coast of Colombia.
Azevia querna Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889,
174, Pacific Ocean off coast of Colombia, at Albatross station 2802,
lat. 8° 38' N., long. 79° 31' 30'' W.
1726. *Cyclopsetta chittendeni* B. A. Bean.
Trinidad Island.
Cyclopsetta chittendeni B. A. Bean, Proc. U. S. Nat. Mus., XVII, 1894,
635, Trinidad Island.
- Genus 568. **AZEVIA**, Jordan and Goss.
Azevia Jordan and Goss, Rept. U. S. Fish Com., XIV, 1886 (1888),
271 (*Citharichthys panamensis* Steindachner).
1727. *Azevia panamensis* (Steindachner).
Pacific coast of Central America.
Citharichthys panamensis Steindachner, Ichth. Beitr., III, 1875, 62,
Panama.
- Genus 569. **PLATOTICHTHYS** Nichols.
Platotichthys Nichols, Bull. Amer. Mus. Nat. Hist., XLIV, 1921, 21
(*P. charles* Nichols).
1728. *Platotichthys charles* Nichols.
Bahamas.
Platotichthys charles Nichols, Bull. Amer. Mus. Nat. Hist., XLIV,
1921, 21, pl. III, Turk Island, Bahamas.
- Family 135. **HIPPOGLOSSIDÆ**. Halibuts
- Genus 570. **ATHERESTHES** Jordan and Gilbert.
Atheresthes Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 51
(*Platysomatichthys stomias* Jordan and Gilbert).
1729. *Atheresthes stomias* (Jordan and Gilbert). *Arrow-toothed halibut*.
San Francisco to Alaska.
Platysomatichthys stomias Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 301, off San Francisco, Calif.
- Genus 571. **REINHARDTIUS** Gill.
Reinhardtius Gill, Cat. Fishes East Coast N. Amer., Suppl. Proc. Acad.
Nat. Sci. Phila., XIII, 1861, 50 (*Pleuronectes cynoglossus* Fabricius; not
of Linnæus = *Pleuronectes hippoglossoides* Walbaum).
Platysomatichthys Bleeker, Versl. Akad. Amsterdam, XIII, 1862, 426
(*Pleuronectes pinguis* Fabricius).
1730. *Reinhardtius hippoglossoides* (Walbaum). *Greenland halibut*.
Arctic parts of the Atlantic, south to Finland and Grand Banks.
Pleuronectes cynoglossus Fabricius, Fauna Grœnlandica, 1780, 163,
Greenland; not of Linnæus.
Pleuronectes hippoglossoides Walbaum, Artedi Pisc., 1792, 115; based
on Fabricius.
Pleuronectes pinguis Fabricius, Zoologische Bidrag., 1824, 43, Greenland.
Hippoglossus grœnlandicus Günther, Cat., IV, 1862, 404, Greenland.
- Genus 572. **HIPPOGLOSSUS** Cuvier. *Halibut*.
Hippoglossus Cuvier, Règne Anim., ed. 1, II, 1817, 221 (*Pleuronectes
hippoglossus* Linnæus).
1731. *Hippoglossus hippoglossus* (Linnæus). *Common halibut*.
All northern seas, southward in deep waters to France, Sandy Hook,
and northern California.
Pleuronectes hippoglossus Linnæus, Syst. Nat., ed. X, 1758, 269,
European oceans.
Hippoglossus maximus Gottsche, Archiv für Naturgesch., 1835, 164,
no locality.
Hippoglossus gigas Swainson, Nat. Hist. Class'n Anim., II, 1839, 302,
no locality.
Hippoglossus ponticus Bonaparte, Cat. Metod., 1846, 47, Black Sea;
after Pallas.

Genus 573. LYOPSETTA Jordan and Goss.

Lyopsetta Jordan and Goss, in Jordan, Cat. Fish. N. Amer., 1885, 135
(*Hippoglossoides exilis* Jordan and Gilbert).

1732. Lyopsetta exilis (Jordan and Gilbert).

North Pacific, in rather deep water; San Francisco to Alaska.

Hippoglossoides exilis Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, off San Francisco, between the Golden Gate and Point Reyes,
Calif.

Genus 574. HIPPOGLOSSOIDES Gottsche.

Hippoglossoides Gottsche, Archiv für Naturgesch., 1835, 164 (*Pleuronectes limanda* Linnaeus).

Citharus Reinhardt, Kōng. Dansk. Vid Selsk., 1838, 116 (*Pleuronectes platessoides* Fabricius; not *Citharus* Bleeker, 1862).

Drepanopsetta Gill, Cat. Fish. East Coast N. Amer., Suppl. Proc. Acad. Nat. Sci. Phila., XIII, 1861, 50 (*Pleuronectes platessoides* Fabricius).

Pomatopsetta Gill, Proc., Acad. Nat. Sci. Phila., XVI, 1864, 217 (*Platessa dentata* = *Pleuronectes platessoides* Fabricius).

1733. Hippoglossoides platessoides (Fabricius). *Sand dab*; *Dab*.

North Atlantic, south to Cape Cod, and coasts of England and Scandinavia.

Pleuronectes linguatula Müller, Prodr. Zool. Dan., 1776, 45; not of Linnaeus.

Pleuronectes platessoides Fabricius, Fauna Groenlandica, 1780, 164, Greenland.

Pleuronectes limandoides Bloch, Naturgesch. Ausl. Fische, III, 1787, 24, Tab. 186, Europe.

1734. Hippoglossoides elassodon Jordan and Gilbert.

Puget Sound and northward.

Hippoglossoides elassodon Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 278, Puget Sound at Seattle and Tacoma, Wash.

1735. Hippoglossoides robustus Gill and Townsend.

Bering Sea.

Hippoglossoides robustus Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897 (Sept. 17), Bering Sea, lat. 56° 14' N., long. 164° 08' W., Albatross station 3541 in 49 fathoms.

1736. Hippoglossoides hamiltoni Jordan and Gilbert.

Off Dalnoi Point, Kamchatka.

Hippoglossoides hamiltoni Jordan and Gilbert, Rept. Fur-seal Invest., 1898, 489, Dalnoi Point, Avatcha Bay, Kamchatka, in 16 fathoms.

Genus 575. EOPSETTA Jordan and Goss.

Eopsetta Jordan and Goss, in Jordan, Cat. Fish. N. Amer., 1885, 135
(*Hippoglossoides jordani* Lockington).

1737. Eopsetta jordani (Lockington). *California sole*.

West coast of United States, from Puget Sound to Monterey.

Hippoglossoides jordani Lockington, Proc. U. S. Nat. Mus., II, 1879, 73, San Francisco.

Genus 576. PSETTICHTHYS Girard.

Psettichthys Girard, Proc. Acad. Nat. Sci. Phila., VI, 1854, 140 (*P. melanostictus* Girard).

1738. Psettichthys melanostictus Girard.

Pacific coast of North America from Alaska south to Monterey.

Psettichthys melanostictus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 140, San Francisco; Astoria, Oreg.

Family 136. PARALICHTHYIDÆ. Bastard halibuts**Genus 577. HIPPOGLOSSINA** Steindachner.

Hippoglossina Steindachner, Ichth. Beitr., V, 1876, 13 (*H. macrops* Steindachner).

1739. *Hippoglossina stomata* Eigenmann and Eigenmann.
Off San Diego, Calif.
Hippoglossina stomata Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., III, 1890, 22, San Diego, Calif.
1740. *Hippoglossina macrops* Steindachner.
Pacific coast of Mexico at Mazatlan.
Hippoglossina macrops Steindachner, Ichth. Beitr., V, 1876, 13, pl. 3, Mazatlan, Mexico.
1741. *Hippoglossina bollmani* Gilbert.
Pacific coast off Colombia.
Hippoglossina macrops Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 175; not of Steindachner.
Hippoglossina bollmani Gilbert, loc. cit., XIII, 1890, 122, off coast of Colombia at Albatross station 2805, lat. 7° 56' N., long. 79° 41' 30" W. in 51½ fathoms.
1742. *Hippoglossina sabanensis* Boulenger.
Isthmus of Panama.
Hippoglossina sabanensis Boulenger, Bolletino Mus. Zool. Univ. Torino, XIV, 1899, 4, Rio Sabana, Darien.
- Genus 578. *LI OGLOSSINA* Gilbert.
Lioglossina Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 122 (*L. tetrophthalma* Gilbert).
1743. *Lioglossina tetrophthalma* Gilbert.
Gulf of California.
Lioglossina tetrophthalmus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 122, Gulf of California, Albatross stations 3014 and 3016, in 29 and 76 fathoms.
- Genus 579. *VERASPER* Jordan and Gilbert.
Verasper Jordan and Gilbert, Rept. Fur-seal Invest., 1898, 490 (*V. moseri* Jordan and Gilbert).
1744. *Verasper moseri* Jordan and Gilbert.
Kuril Islands.
Verasper moseri Jordan and Gilbert, Rept. Fur-seal Invest., 1898, 490, Pl. LXXXV, Shana Bay, Iturup Island, Kuril Group.
- Genus 580. *XYSTREURYS* Jordan and Gilbert.
Xystreurus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 34 (*X. liolepis* Jordan and Gilbert).
1745. *Xystreurus liolepis* Jordan and Gilbert.
Coast of California, from Point Conception southward.
Xystreurus liolepis Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 34, Santa Barbara, Calif.
- Genus 581. *PARALICHTHYS* Girard. *Bastard halibuts*.
Paralichthys Girard, Pac. R. R. Surv., X, 1859, 146 (*P. maculosus* Girard).
Chænopsella Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 218 (*Platessa oblonga* Storer).
Pseudorhombus Bleeker, Compt. Rend. Acad. Sci. Amsterdam, XIII, 1862, 5 (*Rhombus polyspilus* Bleeker).
Uropsella Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Hippoglossus californicus* Ayres).
1746. *Paralichthys californicus* (Ayres). *Bastard halibut*; *Monterey halibut*.
Coast of California, Tomales Bay to San Diego.
Hippoglossus californicus Ayres, Proc. Calif. Acad. Nat. Sci., ser. 1, II, 1859, 29, and 1860, fig. 10, San Francisco.
1747. *Paralichthys magdalenæ* Abbott.
Coast of Lower California.
Paralichthys magdalenæ Abbott (James Francis), in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2871, Magdalena Bay, Lower California.

1748. *Paralichthys æstuarius* Gilbert and Scofield.
Mouth of Colorado River, Gulf of California.
Paralichthys æstuarius Gilbert and Scofield, Proc. U. S. Nat. Mus., XX, 1898, 499, Pl. XXIX, Shoal Point, mouth of the Colorado River.
1749. *Paralichthys brasiliensis* (Ranzani).
Atlantic coast of South America; said to range northward to Guatemala.
Hippoglossus brasiliensis Ranzani, Nov. Spec. Pisc., 1840, 10, Tab. 3, Brazil.
Pseudorhombus vorax Günther, Cat., IV, 1862, 429, South America.
1750. *Paralichthys woolmani* Jordan and Williams.
Guaymas to Panama.
Paralichthys woolmani Jordan and Williams, in Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 457, Galapagos Islands.
1751. *Paralichthys sinaloæ* Jordan and Abbott.
Pacific coast of Mexico.
Paralichthys sinaloæ Jordan and Abbott (J. F.), in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2872, Mazatlan and La Paz.
1752. *Paralichthys dentatus* (Linnaeus). *Summer flounder; Fluke.*
Atlantic coast of United States from Cape Cod to Florida.
Pleuronectes dentatus Linnaeus, Syst. Nat., ed. XII, 1766, and of numerous copyists.
Pleuronectes melanogaster Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 390, New York; doubled example.
Platessa ocellaris DeKay, N. Y. Fauna: Fishes, 1842, 300, p. 47, fig. 152, New York.
Paralichthys ophryas Jordan and Gilbert, Synopsis, 1883, 822, Charleston, S. C.
1753. *Paralichthys lethostigmus* Jordan and Gilbert. *Southern flounder.*
South Atlantic and Gulf coasts of the United States, north to New York.
Platessa oblonga DeKay, N. Y. Fauna: Fishes, 1842, 299, pl. 48, fig. 156, New York; not *Pleuronectes oblongus* Mitchill.
Paralichthys lethostigma Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 237, Jacksonville, Fla.
1754. *Paralichthys oblongus* (Mitchill). *Four-spotted flounder.*
Coasts of New England and New York.
Pleuronectes oblongus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 391, New York.
1755. *Paralichthys squamilentus* Jordan and Gilbert.
South Atlantic and Gulf coasts of United States.
Paralichthys squamilentus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 303, Pensacola, Fla.
1756. *Paralichthys albiguttus* Jordan and Gilbert. *Gulf flounder.*
South Atlantic and Gulf coasts of the United States.
Paralichthys albigutta Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 302, Pensacola, Fla., and Beaufort, N. C.
- Genus 582. **ANCYLOPSETTA** Gill.
Ancylopssetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 224 (*A. quadrocellatus* Gill).
1757. *Ancylopssetta quadrocellatus* Gill.
South Atlantic and Gulf coasts of the United States.
Ancylopssetta quadrocellatus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 224, Pensacola; not *Platessa quadrocellata* Storer.
Paralichthys ommatus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 616, Charleston, S. C.
- Genus 583. **RAMULARIA** Jordan and Evermann.
Ramularia Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2633 (*Ancylopssetta dendritica* Gilbert).
1758. *Ramularia dendritica* (Gilbert).
Gulf of California.
Ancylopssetta dendritica Gilbert, Proc., U. S. Nat. Mus., XIII, 1890, 121, Gulf of California, at Albatross station 3022, lat. 30° 58' 30'' N., long. 113° 17' 15'' W., in 11 fathoms.

Genus 584. NOTOSEMA Goode and Bean.

Notosema Goode and Bean, Bull. Mus. Comp. Zool., X, 1882, 193 (*N. dilecta* Goode and Bean).

1759. Notosema dilectum Goode and Bean.

Gulf Stream.

Notosema dilecta Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, 193, Gulf Stream off the coast of South Carolina.

Genus 585. GASTROPSETTA B. A. Bean.

Gastropsetta Bean, Proc. U. S. Nat. Mus., XVII, 1894, 633 (*G. frontalis* Bean).

1760. Gastropsetta frontalis B. A. Bean.

Key West and Apalachicola, Fla.

Gastropsetta frontalis B. A. Bean, Proc. U. S. Nat. Mus., XVII, 1894, 633, Key West and Apalachicola, at Albatross stations 2317 and 2783, in 45 fathoms.

Family 137. PLEURONECTIDÆ**Genus 586. PLEURONICHTHYS** Girard.

Pleuronichthys Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1854, 139 (*P. cænopus* Girard).

Heteroprosopon Bleeker, Versl. Akad. Amsterdam, XIII, 1862 (*Pleuronectes cornutus* Temminck and Schlegel).

Parophrys Günther, Cat., IV, 1862, 454; not of Girard.

1761. Pleuronichthys decurrens Jordan and Gilbert.

Pacific coast of United States, south to Monterey.

Pleuronichthys decurrens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 453, San Francisco; Monterey Bay.

1762. Pleuronichthys verticalis Jordan and Gilbert.

Coast of California, in deep water.

Pleuronichthys verticalis Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 49, San Francisco.

1763. Pleuronichthys cænopus Girard.

Alaska, southward to San Diego; most common about Puget Sound.

Pleuronichthys cænopus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139, San Francisco.

1764. Pleuronichthys nephelus Starks and Thompson.

Puget Sound.

Pleuronichthys nephelus Starks and Thompson, Proc. U. S. Nat. Mus., XXXVIII, 1911, 282, fig. 1, San Juan Islands, Wash.

1765. Pleuronichthys ritteri Starks and Morris.

San Diego Bay.

Pleuronichthys ritteri Starks and Morris in Starks & Thompson, Proc. U. S. Nat. Mus., XXXVIII, 1911, 287, San Diego, Calif.

1766. Pleuronichthys ocellatus Starks and Thompson.

Gulf of California.

Pleuronichthys ocellatus Starks and Thompson, Proc. U. S. Nat. Mus., XXXVIII, 1911, 285, fig. 2, Gulf of California.

Genus 587. HYP SOPSETTA Gill.

Hypsopsetta Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Pleuronichthys guttulatus* Girard).

1767. Hypsopsetta guttulata (Girard). *Diamond flounder.*

Coast of California, Cape Mendocino to Magdalena Bay.

Pleuronichthys guttulatus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 137, Tomales Bay, Calif.

Parophrys ayresi Günther, Cat., IV, 1862, 457, San Francisco.

Genus 588. PAROPHRYS Girard.

Parophrys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139 (*P. vetulus* Girard).

1768. *Parophrys vetulus* Girard.

Pacific coast of North America, Alaska to Santa Barbara.

Parophrys vetulus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 140, California.

Pleuronectes diagrammus Günther, Cat., IV, 1862, 445, Victoria, British Columbia.

Parophrys hubbardii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 281, San Francisco.

Genus 589. PLEURONECTES Linnæus. Plaice.

Pleuronectes Artedi, Genera Pisc., in part, 1738, 16.

Pleuronectes Linnæus, Syst. Nat., ed. X, 1758, 268; after Artedi (*P. platessa* Linnæus).

Platessa Cuvier, Règne Anim., ed. I, II, 1817, 220 (*Pleuronectes platessa* L.).

1769. *Pleuronectes quadrituberculatus* Pallas.

Coasts of Alaska and Kamchatka.

Platichthys quadrituberculatus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 423, sea between Kamchatka and Alaska.

Pleuronectes pallasi Steindachner, Ichth. Beitr., VIII, 1879, Kamchatka.

Genus 590. PLATICHTHYS Girard. Starry flounders.

Platichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139 (*P. rugosus* Girard = *Pleuronectes stellatus* Pallas).

1770. *Platichthys stellatus* (Pallas). Great flounder; California flounder.

Pacific coast of America, from Point Conception to the Arctic Ocean, and south to Sakhalin Island.

Pleuronectes stellatus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 416, Kamchatka, Aleutian and Kuril Islands.

Platichthys rugosus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 139, 155, San Francisco, Presidio; Petaluma, Calif.

Genus 591. INOPSETTA Jordan and Goss.

Inopsetta Jordan and Goss, Rept. U. S. Fish Com., 1885 (1887), 924 (136 of inside paging) (*Parophrys ischyryus* Jordan and Gilbert).

1771. *Inopsetta ischyra* (Jordan and Gilbert).

Puget Sound, probably northward to Alaska.

Parophrys ischyryus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 276, 453, Puget Sound.

Genus 592. LEPIDOPSETTA Gill.

Lepidopsetta Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Psetichthys umbrosus* Girard).

1772. *Lepidopsetta bilineata* (Ayres).

Pacific coast of North America, Alaska to Monterey and northern Japan.

Platessa bilineata Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 40 (39 of reprint), San Francisco.

Platichthys umbrosus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 136, Puget Sound.

Pleuronectes perarcuatus Cope, Proc. Amer. Phil. Soc. Phila., XIII, 1873, 32, Unalaska.

Genus 593. ISOPSETTA Lockington.

Isopsetta Lockington, in Jordan and Gilbert, Bull. U. S. Nat. Mus., XVI, 1882, 832 (*Lepidopsetta isolepis* Lockington).

1773. *Isopsetta isolepis* (Lockington).

Puget Sound to Point Conception, in rather deep water.

Lepidopsetta isolepis Lockington, Proc. U. S. Nat. Mus., III, 1880, 325, San Francisco.

Genus 594. LIMANDA Gottsche. Mud dabs.

Limanda Gottsche, Archiv für Naturgesch., 1835, 100 (*Pleuronectes limanda* Linnæus).

Myzopsetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 217 (*Platessa ferruginea* Storer).

1774. *Limanda ferruginea* (Storer).
Atlantic coast of North America, Labrador to New York.
Platessa ferruginea D. H. Storer, Rept. Fish. Mass., 1839, 141, pl. 2, Cape Ann.
Platessa rostrata H. R. Storer, Bost. Jour. Nat. Hist., VI, 1850, 268, Labrador.
1775. *Limanda aspera* (Pallas).
Coasts of Alaska and Kamchatka.
Pleuronectes asper Pallas, Zoogr. Rosso.-Asiat., III, 1811, 425, east coast of Siberia.
1776. *Limanda proboscidea* Gilbert.
Bristol and Herendeen Bays, Alaska.
Limanda proboscidea Gilbert, Rept. U. S. Fish Com., XIX, 1893 (1896), 460, pl. 33, Bristol and Herendeen Bays, Alaska.
1777. *Limanda beanii* Goode.
Deep water, off coast of New England.
Limanda beanii Goode, Proc. U. S. Nat. Mus., III, 1880 (Feb. 16, 1881), 473 southern coast of New England, *Fish Hawk* stations 875, 876.
- Genus 595-596. PSEUDOPLEURONECTES Bleeker. *Winter flounders*.
Pseudopleuronectes Bleeker, Versl. Akad. Amsterdam, XIII, 1862, 428
(*Platessa plana* Mitchill = *Pleuronectes americanus* Walbaum).
1778. *Pseudopleuronectes americanus* (Walbaum). *Common flatfish; Winter flounder; Roughback*.
Atlantic coast of North America, from Labrador to Cape Lookout.
Flounder Schöpfung, Schrift. Gesellsch. Naturf. Freunde, VIII, 1788, 148, New York.
Pleuronectes americanus Walbaum, Artdi Pisc., 1792, 113; based on the *Flounder* of Schöpfung.
Pleuronectes planus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 387, New York.
Platessa pusilla DeKay, New York Fauna: Fishes, 1842, 296, pl. 47, fig. 153, New York.
1779. *Pseudopleuronectes dignabilis* Kendall. *Lemon-yellow flounder*.
North Atlantic coast, Newfoundland to Cape Cod.
Pseudopleuronectes dignabilis Kendall, Bull. U. S. Fish Com., XXX, 1910 (1912), 392, Georges Bank.
- Genus 597. LIOPSETTA Gill.
Liopsetta Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 216 (*Platessa glabra* Storer).
Euchalarodus Gill, loc. cit., 221 (*E. putnami* Gill, the male of *Liopsetta glabra* Storer).
1780. *Liopsetta glacialis* (Pallas). *Arctic flounder*.
Arctic Ocean and Bering Sea south to St. Michaels, Alaska.
Pleuronectes glacialis Pallas, Itin., III, App., 1776, 706; mouth of the Obi River.
Pleuronectes cicatricosus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 424, sea between Kamchatka and Alaska; male.
? *Platessa drinensis* Lilljeborg, Veb. Ab. Handl., 1850, 360, Tab. 20, mouth of River Dwina.
Pleuronectes franklini Günther, Cat., IV, 1862, 442, Arctic seas of America; female.
1781. *Liopsetta putnami* (Gill). *Eel-back flounder*.
Atlantic coast of North America, from Cape Cod northward to Labrador and beyond.
Platessa glabra Storer, Proc. Bost. Soc. Nat. Hist., 1843, 130, Massachusetts; female; not *Platessa glabra* of Rathke, 1837, a species of *Flesus*.
Euchalarodus putnami Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 216, 221, Salem, Mass.

1782. *Liopsetta obscura* (Herzenstein).

Sea of Okhotsk.

Pleuronectes obscurus Herzenstein, *Mélanges Biologiques*, 1890, 127, Manchuria.Genus 598. *MICROSTOMUS* Gottsche. *Smear dabs*.*Microstomus* Gottsche, *Archiv für Naturgesch.*, 1835, 150 (*M. latidens* Gottsche); not *Microstoma* Risso, 1826.*Cynoglossus* Bonaparte, *Fauna Italica*, 1837, fasc. XIX (*Pleuronectes cynoglossus* Nilsson); not of Linnæus = *Pleuronectes kitt* Walbaum.*Cynoglossa* Bonaparte, *Cat. Metod.*, 1845, 48 (*Pleuronectes cynoglossus* Linnæus).*Brachyprosopon* Bleeker, *Versl. Akad. Amsterdam*, XIII, 1862, 428 (*Pleuronectes microcephalus* Donovan = *P. kitt* Walbaum).*Cynoglossus* Jordan and Gilbert, *Synopsis*, 1883, 460 (*Pleuronectes microcephalus* Donovan), *microstomus* being regarded as preoccupied.1783. *Microstomus kitt* (Walbaum). *Smear dab*.

Arctic Europe, west to the sea between Greenland and Iceland.

Rhombus lævis cornubiensis Jago in Ray, "Syn. Pisc., 1713, 162, Tab. 1, fig. 1."Smear dab Pennant, *British Zoology*, III, 1776, 230, pl. 41.*Pleuronectes kitt* Walbaum, *Artedi Pisc.*, III, 1792, 120; after Ray.*Pleuronectes quenseli* Hölböhl, Bohusläns, Sweden.*Pleuronectes quadridens* Fabricius, *Afhandl. Kongl. Dansk. Vid. Selsk.*, I, 1824, 39, Iceland.*Microstomus latidens* Gottsche, *Archiv für Naturgesch.*, 1835, 150, Zealand.*Pleuronectes gilli* Steindachner, *Ichth. Notizen*, VII, 1868, polar sea, north of Iceland.1784. *Microstomus pacificus* (Lockington).

Pacific coast of North America, Monterey to Vancouver Island and probably northward.

Glyptocephalus pacificus Lockington, *Rept. Calif. Com. Fish.*, 1878-79, 43, off Point Reyes, Calif.Genus 599. *EMBASSICHTHYS* Jordan and Evermann.*Embassichthys* Jordan and Evermann, *Check List*, 1895 (1896), 506 (*Cynoglossus bathybius* Gilbert).1785. *Embassichthys bathybius* (Gilbert).

Coast of California, south of Point Conception.

Cynoglossus bathybius Gilbert, *Proc. U. S. Nat. Mus.*, XIII, 1890, 123, Santa Barbara Channel at Albatross station 2980, lat. 33° 49' 45" N., long. 119° 24' 30" W., in 603 fathoms.Genus 600. *GLYPTOCEPHALUS* Gottsche.*Glyptocephalus* Gottsche, *Archiv für Naturgesch.*, 1835, 156 (*Pleuronectes saxicola* Fabricius = *P. cynoglossus* Linnæus).1786. *Glyptocephalus cynoglossus* (Linnæus). *Craig fluke*; *Pole flounder*; *Gray sole*; *Lemon sole*.North Atlantic, chiefly in deep water, south to Cape Cod and France. *Pleuronectes cynoglossus* Linnæus, *Syst. Nat.*, ed. X, 1758, 269; after Gronow.*Pleuronectes saxicola* Faber, *Tidsskr. für Naturv.*, 5 B., 1828, 244, Denmark.*Glyptocephalus acadianus* Gill, *Proc. Acad. Nat. Sci. Phila.*, XXV, 1873, 360, Nova Scotia.Genus 601. *ERREX* Jordan.*Errex* Jordan, *Proc. Acad. Nat. Sci. Phila.*, LXXI, 1919, 343 (*Glyptocephalus zachirus* Lockington).1787. *Errex zachirus* (Lockington). *Rex sole*; *Long-finned sole*.

Waters of moderate depth of the northern Pacific; from San Francisco northward.

Glyptocephalus zachirus Lockington, *Proc. U. S. Nat. Mus.*, II, 1879, 88, San Francisco.

Family 138. ACHIRIDÆ. Broad soles

Subfamily GYMNACHIRINÆ

Genus 602. GYMNACHIRUS Kaup.

Gymnachirus Kaup, Wiegmann's Archiv, I, 1858, 101 (*Gymnachirus nudus* Kaup).

1788. *Gymnachirus nudus* Kaup.

Coast of Brazil; once taken at Tisbury Great Pond, Martha's Vineyard Island, Mass. (Vinal N. Edwards).

Gymnachirus nudus Kaup, Wiegmann's Archiv, I, 1858, 101, Brazil

1789. *Gymnachirus fasciatus* Günther.

West Indies; very rare, north to Long Key, Fla. (W. C. Kendall).

Gymnachirus fasciatus Günther, Cat., IV, 1862, 488, locality unknown.

Subfamily ACHARINÆ

Genus 603. ACHIRUS Lacépède.

Achirus Lacépède, Hist. Nat. Poiss., IV, 1803, 658 (*Pleuronectes achirus* Linnæus).

Trinectes Rafinesque, Atlantic Jour. and Friend of Knowledge, I, 1832 (*T. scabra* Rafinesque=*Pleuronectes mollis* Mitchell).

Grammichthys Kaup, Arch. Naturgesch., 1858, 94 (*Achirus lineatus* Linnæus).

Baïostoma Bean, Proc. U. S. Nat. Mus., V, 1882, 413 (*B. brachialis* Bean).

Subgenus ACHIRUS Lacépède.

1790. *Achirus achirus* (Linnæus).

Atlantic coasts of tropical America.

Pleuronectes oculis dextris corpore glabro, pinnis pectoralibus nullus Gronow, Museum, I, No. 42, Surinam.

Pleuronectes achirus Linnæus, Syst. Nat., ed. X, 1758, 268, Surinam; based on Gronow.

Solea gronovii Günther, Cat., IV, 1862, 472, Surinam.

1791. *Achirus inscriptus* Gosse.

West Indies, north to Key West.

Achirus inscriptus Gosse, Nat. Sojourn Jamaica, 1851, 52, pl. 1, fig. 4, Jamaica.

Monochir reticulatus Poey, Memorias, II, 1861, 317, Cuba.

Subgenus GRAMMICHTHYS Kaup.

1792. *Achirus klunzingeri* (Steindachner).

Pacific coast of tropical America, Panama to Guayaquil.

Solea klunzingeri Steindachner, Zur Fische des Cauca und der Flüsse bei Guayaquil, 1879, 44, Guayaquil.

Subgenus TRINECTES Rafinesque.

1793. *Achirus fasciatus* Lacépède. *American sole; Hogchoker.*

Atlantic coast of United States, from Cape Cod to Texas; often ascending streams.

Achirus fasciatus Lacépède, Hist. Nat. Poiss., IV, 1803, 659, Charleston, S. C.

Pleuronectes mollis Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 388, pl. 2, fig. 4, New York.

Pleuronectes apoda Mitchell, Amer. Month. Mag. and Crit. Rev., Feb., 1818, 244, Straits of Bahama.

Trinectes scabra Rafinesque, Atlantic Jour. and Friend of Knowledge, I, 1832, Pennsylvania, in fresh water.

Solea browni Günther, Cat., IV, 1862, 477, New Orleans; Texas.

1794. *Achirus scutum* (Günther).

Pacific coast of Central America.

Solea scutum Günther, Cat., IV, 1862, 474, Gulf of Fonseca, Panama.

1795. *Achirus fonsecensis* (Günther).
Pacific coast of tropical America, Mazatlan to Fonseca.
Solea fonsecensis Günther, Cat., IV, 1862, 475, Gulf of Fonseca.
Solea panamensis Steindachner, Ichth. Beiträge, V, 1876, 10, Taf. II, Panama.
Solea fischeri Steindachner, Beiträge Kenntniss Fluss-Fische Sudamer., I, 1879, 13, Rio Mamone near Panama.
1796. *Achirus mazatlanus* (Steindachner). *Mexican sole; Teipalcate*.
Pacific coast of tropical America.
Solea mazatlana Steindachner, Ichth. Notizen, IX, 1869, 23, Mazatlan, Mexico.
Solea pilosa Peters, Berliner Monatsber., 1869, 709, Mazatlan, Mexico.
1797. *Achirus comifer* Jordan and Gilbert.
Key West, Fla.
Achirus comifer Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 31, Key West, Fla.
1798. *Achirus lineatus* (Linnæus).
Florida to Brazil.
Passer lineis transversis notatus Sloane, Jamaica, 2, 1725, 77, pl. 246, fig. 2, Jamaica.
Pleuronectes fuscus subrotundus glaber Browne, Jamaica, 1756, 445, Jamaica.
Pleuronectes lineatus Linnæus, Syst. Nat., ed. X, 1758, 268, Jamaica; based on Browne and Sloane; not of ed. XII, which is *Achirus fasciatus*.
Monochir maculipinnis Agassiz, Spix, Pisc. Brasil., 1829, 88, pl. 49, Brazil.
Baïostoma brachialis Bean, Proc., U. S. Nat. Mus., V, 1882, 413, Appalachicola Bay and south Florida.
1799. *Achirus barnharti* Jordan.
Coast of southern California; Coronado Islands.
Achirus barnharti Jordan, Univ. Calif. Pub. Zool., XXVI, 1923, 10, Pl. I, Coronado Islands in about 400 feet depth of water.
- Genus 604. **APIONICHTHYS** Kaup.
Apionichthys Kaup, Wiegmann's Archiv, 1858, 104 (*A. dumerili* Kaup).
Soleotalpa Günther, Cat., IV, 1862, 489 (*S. unicolor* Günther).
1800. *Apionichthys dumerili* Kaup.
West Indies.
Apionichthys dumerili Kaup, Wiegmann's Archiv, 1858, 104, no locality; description of species included in that of the genus.
Soleotalpa unicolor Günther, Cat., IV, 1862, 489, West Indies.
Apionichthys nebulosus Peters, Berliner Monatsb., 1869, 709, Surinam.

Family 139. CYNOGLOSSIDÆ. Tonguefishes

- Genus 605. **SYMPHURUS** Rafinesque. *Tonguefishes*.
Symphurus Rafinesque, Indice, 1810, 13, 52 (*S. nigrescens* Rafinesque).
Bibronia Cocco, Alcuni Pesci del Mare di Messina, 1844, 15 (*B. ligulata* Cocco, larval form of *Symphurus*).
Plagusia Cuvier, Règne Animal, ed. 2, II, 1829, 344; based on *Plagusia* of Browne; name preoccupied in crustaceans, Latreille, 1806.
Plagusia Bonaparte, Cat. Metod., 1846, 51 (*P. lactea*); name a substitute for *Plagusia*.
Aphoristia Kaup, Archiv für Natur., 1858, 106 (*Achirus ornatus* Lacépède).
Glossichthys Gill, Cat. Fish. E. Coast N. Amer., 1861, 51 (*Pleuronectes plagusia* Linnæus).
Ammopleurops Günther, Cat., IV, 1862, 490 (*Plagusia lactea* Bonaparte).
? *Bascanius* Schiödte, Naturhist. Tijdskr., V, 1867, 269 (*B. tædifer* Schiödte; larval).
1801. *Symphurus piger* (Goode and Bean).
West Indies and Gulf of Mexico in deep water.
Aphoristia pigra Goode and Bean, Bull. Mus. Comp. Zool., XII, No. 5, 1886, 154, St. Kitts, in about 250 fathoms.

1802. *Symphurus marginatus* (Goode and Bean).
West Indies.
Aphoristia marginata Goode and Bean, Bull. Mus. Comp. Zool., XII, No. 5, 1886, 153, off St. Vincent, West Indies.
1803. *Symphurus atramentatus* Jordan and Bollman.
Off coast of Colombia.
Symphurus atramentatus Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 177, off coast of Colombia at Albatross station 2795, lat. 7° 57' N., long. 78° 55' W., in 33 fathoms.
1804. *Symphurus fasciolaris* Gilbert.
Gulf of California.
Symphurus fasciolaris Gilbert, Proc. U. S. Nat. Mus., XIII, 1891, 506, Gulf of California.
1805. *Symphurus elongatus* (Günther).
Pacific coast of tropical America.
Aphoristia ornata var. *elongata* Günther, Fishes Cent. Amer., 1869, 473, Panama.
1806. *Symphurus atricaudus* (Jordan and Gilbert). *San Diego sole*.
Lower California, north to San Diego.
Aphoristia atricauda Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 23, San Diego, Calif.
1807. *Symphurus leei* Jordan and Bollman.
Off the coast of Colombia.
Symphurus leei Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 178, off coast of Colombia at Albatross station 2804, lat. 8° 16' 30" N., long. 79° 37' 45" W., in 47 fathoms.
1808. *Symphurus plagusia* (Bloch and Schneider). *Acedia*.
West Indies, south to Rio Janeiro.
Plagusia Browne, Jamaica, No. 1, 1756, 445, Jamaica.
Pleuronectes plagusia Bloch and Schneider, Syst. Ichth., 1801, 162, Jamaica; after Browne.
Achirus ornatus Lacépède, Hist. Nat. Poiss., IV, 1803, 659; on a specimen "presented by Holland to France."
Plagusia tessellata Quoy and Gaimard, Voyage Uranie, Zoology, 1824, 240, Rio Janeiro.
Plagusia brasiliensis Agassiz, in Spix, Pisc. Brasil., 1827, 89, tab. 50, Brazil.
1809. *Symphurus plagiusa* (Linnæus). *Tonguefish*.
South Atlantic and Gulf coasts of United States.
Pleuronectes plagiusa Linnaeus, Syst. Nat., ed. XII, 1766, 455, on a specimen from Doctor Garden, probably from Charleston.
Plagusia fasciata Holbrook, in DeKay, New York Fauna: Fishes, 1842, 304, Charleston, S. C.
1810. *Symphurus pusillus* (Goode and Bean).
Off Atlantic coast of United States in deep water.
Aphoristia pusilla Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 590, Gulf Stream, lat. 40° N., in deep water.
1811. *Symphurus diomedeanus* (Goode and Bean).
Gulf of Mexico, off Key West, Fla.
Aphoristia diomedea Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 589, Gulf of Mexico, lat. 25° 4' 30" N., long. 82° 59' 15" W.
1812. *Symphurus williamsi* Jordan and Culver.
West coast of Mexico.
Symphurus williamsi Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 506, pl. 55, Mazatlan, Mexico.
- Genus 606. *ACEDIA* Jordan.
Acedia Jordan, in Jordan and Goss, Rept. U. S. Fish Com., XIV, 1886 (1888) (*Aphoristia nebulosa* Goode and Bean).
1813. *Acedia nebulosa* (Goode and Bean).
Gulf Stream.
Aphoristia nebulosa Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 192, Gulf Stream, off the coast of the Carolinas.

Superorder ACANTHOPTERYGII

Order LL. ZEOIDEI

Family 140. ZEIDÆ. John dories

Genus 607. ZENOPSIS Gill.

Zenopsis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 126 (*Zeus nebulosus* Temminck and Schlegel).

1814. *Zenopsis ocellata* (Storer). *Ocellated dory*.

Off New England coast.

Zeus ocellatus Storer, Proc. Bost. Soc. Nat. Hist., VI, 1858, 386, off Provincetown, Mass.

Genus 608. ZENION Jordan and Evermann.

Zenion Jordan and Evermann, Rept. U. S. Fish Com., XXI, 1895 (1896), 418 (*Cyttus hololepis* Goode and Bean).

1815. *Zenion hololepis* (Goode and Bean).

West Indies, in deep water.

Cyttus hololepis Goode and Bean, Oceanic Ichth., 1896, 225. figs. 233, 233a, 233b, off Yucatan and Little Bahama Bank.

Genus 609. OREOSOMA Cuvier and Valenciennes.

Oreosoma Cuvier, Règne Animal, ed. 2, II, 1829 (type not named, *Oreosoma atlanticum* Cuvier).

Oreosoma Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1830, 377 (515) (*O. atlanticum* Cuvier and Valenciennes).

1816. *Oreosoma atlanticum* Cuvier and Valenciennes.

Open Atlantic; only a few specimens known.

Oreosoma atlanticum Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 377 (515), open Atlantic.

Oreosoma conferrum Cuvier and Valenciennes, loc. cit., pl. 99, same type.

Family 141. GRAMMICOLEPIDÆ

Genus 610. GRAMMICOLEPIS Poey.

Grammicolepis Poey, Anal. Soc. Esp. Hist. Nat., II, 1873 (*G. brachiusculus* Poey).

1817. *Grammicolepis brachiusculus* Poey.

Cuba; in deep water.

Grammicolepis brachiusculus Poey, Anal. Soc. Española Hist. Nat., II, 1873, Cuba.

Order MM. XENOBERYCES

Family 142. STEPHANOBERYCIDÆ

Genus 611. STEPHANOBERYX Gill.

Stephanoberyx Gill, Proc. U. S. Nat. Mus., VI, 1883, 258 (*S. monæ* Gill).

1818. *Stephanoberyx monæ* Gill.

Gulf Stream, in deep water.

Stephanoberyx monæ Gill, Proc. U. S. Nat. Mus., VI, 1883, 258, Gulf Stream at Albatross station 2077 in 1,255 fathoms.

1819. *Stephanoberyx gillii* Goode and Bean.

Gulf Stream, in deep water.

Stephanoberyx gillii Goode and Bean, Oceanic Ichth., 1895, 187, fig. 206, Gulf Stream at Albatross station 2099 in 2,949 fathoms.

Family 143. MELAMPHAIDÆ

Genus 612. CAULOLEPIS Gill.

Caulolepis Gill, Forest and Stream, XXI, Aug. 30, 1883, and Proc. U. S. Nat. Mus., VI, 1883, 258 (*C. longidens* Gill).

1820. *Caulolepis longidens* Gill.

Gulf Stream and Pacific Ocean at Cortez Banks off San Diego, Calif.
Caulolepis longidens Gill, Proc. U. S. Nat. Mus., VI, 1883, 258, Atlantic Ocean, lat. 39° 27' N., long. 69° 56' 20" W., in 1,346 fathoms.

Genus 613. ANOPOLOGASTER Günther.

Anoplogaster Günther, Cat., I, 1859, 12 (*Hoplostethus cornutus* Cuvier and Valenciennes).

1821. *Anoplogaster cornutus* (Cuvier and Valenciennes).

Atlantic, in deep water, north and south.
Hoplostethus cornutus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 347 (270); from stomach of a shark, taken at 26° lat. S; others taken by the *Albatross* 31° N., 40° W., from the stomach of an albacore.

Genus 614. POROMITRA Goode and Bean.

Poromitra Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 214 (*P. capito* Goode and Bean).

1822. *Poromitra capito* Goode and Bean.

Deep water in Gulf Stream in latitude 34°.
Poromitra capito Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 215, Gulf Stream.

Genus 615. PLECTROMUS Gill.

Plectromus Gill, Proc. U. S. Nat. Mus., VI, 1883, 257 (*P. suborbitalis* Gill).

1823. *Plectromus suborbitalis* Gill.

Gulf Stream, in deep water.
Plectromus suborbitalis Gill, Proc. U. S. Nat. Mus., VI, 1883, 258, lat. 38° 52' N., long. 69° 24' W., at *Albatross* stations 2036, 2190, and 2535 in 1,149 to 1,800 fathoms.

1824. *Plectromus beani* (Günther).

Gulf Stream in deep water.
Plectromus crassiceps Bean, Proc. U. S. Nat. Mus., VIII, 1885, 73, Gulf Stream; name preoccupied.
Melamphaes beani Günther, *Challenger* Rept., XXII, 1887, 29, Gulf Stream, in about latitude 40°.

1825. *Plectromus crassiceps* (Günther).

Mid-Atlantic; Brazil.
Scopelus crassiceps Günther, Ann. Mag. Nat. Hist., II, 1878, 185, deep water in mid-Atlantic and off Pernambuco.

1826. *Plectromus cristiceps* (Gilbert).

Coast of Washington and Oregon and southeastern Alaska.
Melamphaes cristiceps Gilbert, Proc. U. S. Nat. Mus., XIII, 1890 (1891), 60, coasts of Oregon and Washington and *Albatross* station 3075 in 859 fathoms.

1827. *Plectromus lugubris* (Gilbert).

Coast of California; off Bay of Panama; Bering Sea.
Melamphaes lugubris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890 (1891), 59, coast of California south of Point Conception, at *Albatross* station 2923 in 822 fathoms.

1828. *Plectromus mizolepis* (Günther).

Off Bay of Panama in deep water; south of New Guinea and Bay of Bengal.
Scopelus mizolepis Günther, Ann. Mag. Nat. Hist., 11, 1878, 185, south of New Guinea.

1829. *Plectromus nycterinus* (Gilbert).

Coast of southern California, in deep water.
Melamphaes nycterinus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 326, pl. 16, off Santa Catalina, 2,113 to 2,259 fathoms.

1830. *Plectromus bispinosus* (Gilbert).

Coronado Islands, near San Diego, Calif.
Melamphaes bispinosus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 325, pl. 15, fig. 5; off the Coronado Islands, near San Diego, 642 to 666 fathoms.

Order NN. BERYCOIDEI

Family 144. POLYMIXIIDÆ. Barbudos

Genus 616. POLYMIXIA Lowe.

Polymixia Lowe, Trans., Cambr. Phil. Soc., VI, 1838, 198 (*P. nobilis* Lowe).

Nemabrama Valenciennes, Ichth. Îles Canaries, 1844, 40 (*N. webbi* Valenciennes = *Polymixia nobilis* Lowe).

Dinemus Poey, Memorias, II, 1861, 160 (*D. venustus* Poey = *Polymixia lowei* Günther).

1831. *Polymixia lowei* Günther. Barbudo.

Caribbean Sea; Cuba.

Polymixia lowei Günther, Cat., I, 1859, 17, Caribbean Sea.

Dinemus venustus Poey, Memorias, II, 1861, 161, Cuba.

Family 145. BERYCIDÆ

Genus 617. BERYX Cuvier. *Alfonsinos*.

Beryx Cuvier, Règne Anim., ed. 2, II, 1829, 151 (*B. decadactylus* Cuvier and Valenciennes).

1832. *Beryx decadactylus* Cuvier and Valenciennes. *Alfonsin a Casta Larga*.
Cosmopolitan, open seas, in rather deep water; Portugal, Madeira, Japan, and Cuba.

Beryx decadactylus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 165 (222), Madeira or Portugal.

1833. *Beryx splendens* Lowe. *Alfonsin a Casta; Cumprida*.

Cosmopolitan, in the open seas, at moderate depth; Madeira, Japan, and Gulf Stream at 35° 49' 30'' N., 74° 34' 45'' W. in 424 fathoms.

Beryx splendens Lowe, Proc. Zool. Soc. Lond., 1833, 142, Madeira.

Family 146. ANOMALOPIDÆ

Genus 618. KRYPTOPHANARON Silvester and Fowler.

Kryptophanaron Silvester and Fowler, Proc. Acad. Nat. Sci. Phila., LXXVIII, 1926, 245 (*K. alfredi* Silvester and Fowler).

1834. *Kryptophanaron alfredi* Silvester and Fowler.

Off coast of Jamaica.

Kryptophanaron alfredi Silvester and Fowler, Proc. Acad. Nat. Sci. Phila., LXXVIII, 1926, 246, Pl. XVIII, fig. 1; Pl. XIX, figs. 2 and 4.

Off Kingston Harbor, Jamaica, floating on surface.

Family 147. TRACHICHTHYIDÆ

Genus 619. HOPLOSTETHUS Cuvier and Valenciennes.

Hoplostethus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 344 (469) (*H. mediterraneus* Cuvier and Valenciennes).

1835. *Hoplostethus mediterraneus* Cuvier and Valenciennes.

Coasts of southern Europe; Gulf Stream.

Hoplostethus mediterraneus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 344 (469), Mediterranean Sea.

Trachichthys pretiosus Lowe, Proc. Zool. Soc. Lond. 1839, 77, Madeira.

Family 148. HOLOCENTRIDÆ. Soldierfishes; Squirrelfishes

Genus 620. OSTICHTHYS Jordan and Evermann.

Ostichthys Langsdorf, in Cuvier and Valenciennes, Hist. Nat. Poiss., III, 130 (174), 1829; name only, passing reference under *Myripristis japonicus* Cuvier.

Ostichthys Jordan and Evermann, Fish. North and Mid. Amer., 1896, 846 (*Myripristis japonicus* Cuvier and Valenciennes).

1836. *Ostichthys trachypomus* (Günther).

West Indies; Cuba.

Myripristis trachypoma Günther, Cat., I, 1859, 25, Cuba.

Myriopristis fulgens Poey, Memorias, II, 1860, 160, Cuba.

Genus 621. MYRIPRISTIS Cuvier.

Myripristis Cuvier, Règne Anim., ed. 2, II, 1829, 150 (*M. jacobus* Cuvier and Valenciennes).

Rhamphoberyx Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 817 (*R. pæcilopus* Gill); young.

Myripristes of authors; altered spelling.

Myriopristis of authors; altered spelling.

1837. *Myripristis jacobus* Cuvier and Valenciennes. *Frère Jacques; Candil*. West Indies to Brazil; common.

Myripristis jacobus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 121 (162), Martinique.

Rhinoberyx chryseus Cope, Proc. Amer. Phil. Soc., XIV, 1871, 464, St. Croix Island.

1838. *Myripristis occidentalis* (Gill).

West coast of America, from Cape San Lucas to Panama; Galapagos; Cocos Island.

Myriopristis occidentalis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 87, Cape San Lucas.

Rhamphoberyx leucopus Gill, loc. cit., 88, Cape San Lucas; immature.

1839. *Myripristis pæcilopus* (Gill).

West coast of America, from Cape San Lucas to Panama.

Rhamphoberyx pæcilopus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 87, Cape San Lucas; immature example.

Genus 622. HOLOTRACHYS Günther.

Holotrachys Günther, Jour. Mus. Godeffroy, Band I, 1873, 93 (*Myripristes lima* Cuvier and Valenciennes).

1840. *Holotrachys lima* (Cuvier and Valenciennes).

South Seas, east to Hawaii and Cocos Island.

Myripristis lima Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 493, Île de France.

Myripristes humilis Kner and Steindachner, Sitz. Akad. Wiss. Wien, LIV, 1866, 357, pl. 1, fig. 1, Samoa.

Genus 623. HOLOCENTRUS Bloch. Squirrelfishes; Soldierfishes.

Holocentrus Gronow, Zoophyl., 1763, 65; nonbinomial.

Holocentrus Bloch, Naturgeschichte. Auslând. Fische, IV, 1790, 61 (*H. sogo* Bloch).

Holocentrum Cuvier, and of most authors; amended spelling.

Rhynchichthys Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 503 (*R. palmatus* Cuvier and Valenciennes); young.

Rhinoberyx Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Rhynchichthys brachyrhynchus* Bleeker); larval form.

1841. *Holocentrus ascensionis*²⁹ (Osbeck). *Matajuelo; Squirrelfish; Soldado; Welchman*.

Islands of the Atlantic and northward from St. Helena and Ascension Island to Florida and Cuba.

?*Perca ascensionis* Osbeck, Iter Chinensis, 1757; reprinted as Reise Ost-Ind. China, 1765, 388, Ascension Island; reprint of a pre-Linnaean paper, hence ineligible.

?*Bodianus pentacanthus* Bloch, Nat. Ausl. Fische, IV, 1790, 40, pl. 225, Brazil; after *Saguaraca* of Marcgrave.

?*Holocentrus sogo* Bloch, loc. cit., 61, pl. 232, Africa.

Sciæna rubra Schneider, Ed. Bloch, Syst. Ichth., 1801, 82; after Catesby.

Amphiprion matejuelo Bloch and Schneider, Syst. Ichth., 1801, 206, Cuba; after Parra.

?*Bodianus jaguar* Lacépède, Hist. Nat. Poiss., IV, 1802, 286, Brazil.

?*Holocentrum longipinnæ* Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 138 (155), Brazil; Martinique; Porto Rico; St. Thomas; San Domingo; Habana.

Holocentrus striatus Gronow, Cat. Fishes, 1854, 173, Antilles.

Holocentrus rostratus Gronow, loc. cit., 173, near the Equator.

²⁹ The specific name of the common matajuelo of Cuba is still wholly uncertain if the two forms (the one from Cuba, the other from Brazil) are really distinct. The earliest specific name, *ascensionis*, is apparently ineligible, occurring in reprints of a pre-Linnaean paper. The pertinence of most of the other names is more or less uncertain. Here, as elsewhere where no official decision has been made by the International Commission on Zoological Nomenclature, we follow the rule of not changing current nomenclature unless, as in matters of priority, the case is reasonably clear.

1842. *Holocentrus rufus* (Walbaum).
The northern form probably varying into *H. ascensionis*, which ranges from the Bahamas to Brazil.
Perca rufa Walbaum, Artedi Pisc., 1792, 351, Bahamas; after *Perca marina rubra* of Catesby.
1843. *Holocentrus coruscus* (Poey).
Cuba; Bahama Islands; Bermudas; Tortugas.
Holocentrum coruscum Poey, Memorias, II, 1861, 158, Cuba.
Holocentrum sicciferum Cope, Trans. Amer. Phil. Soc., XIV, 1871, 465, Bahamas, New Providence.
? *Holocentrum puncticulatus* Barbour, Bull. Mus. Comp. Zool., XLVI, 1905, 117, Bermudas.
? *Holocentrus tortugæ* Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904 (1905), 236, fig. 1, Garden Key, Tortugas.
1844. *Holocentrus brachypterus* Poey.
Cuba.
Holocentrus brachypterus Poey, Repertorio, I, 1866, 184, Cuba.
1845. *Holocentrus vexillarius* (Poey).
Cuba; Porto Rico.
Holocentrum vexillarium Poey, Memorias, II, 1861, 158, Cuba.
? *Holocentrum riparium* Poey, Enumeratio, 1875, 37, Cuba.
1846. *Holocentrus osculus* (Poey).
Cuba.
Holocentrum osculum Poey, Memorias, II, 1861, 156, Cuba.
Holocentrum perlatum Poey, loc. cit., 157, Cuba.
1847. *Holocentrus sancti-pauli* (Günther).
St. Paul Rocks, mid-Atlantic.
Holocentrum sancti-pauli Günther, Shore Fishes, *Challenger* Rept., Zoology, I, part 6, 1880, 4, St. Paul Rocks, mid-Atlantic.
1848. *Holocentrus meeki* Bean.
Bermudas.
Holocentrus meeki Bean, Proc. Biol. Soc. Wash., XIX, 1906, 31, St. Davids Island, Bermudas.
- Genus 624. **FLAMMEO** Jordan and Evermann.
Flammeo Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2871 (*Holocentrum marianum* Cuvier and Valenciennes).
1849. *Flammeo marianus* (Cuvier and Valenciennes). *Marian*.
West Indies; Cuba; Jamaica; Martinique.
Holocentrum marianum Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 164 (219), Martinique.
Holocentrum rostratum Poey, Memorias, II, 1861, 157, Cuba.
- Genus 625. **ADIORYX** Starks.
Adioryx Starks, Science, XXVIII, 1908, 614 (*Holocentrum suborbitale* Gill).
1850. *Adioryx suborbitalis* (Gill). *Mojarra cardinal*.
Mazatlan to Panama; Revillagigedo, Cocos, and Galapagos Islands.
Holocentrum suborbitale Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 86, Cape San Lucas, Lower California.
- Genus 626. **PLECTRYPOPS** Gill.
Plectrypops Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Holocentrum retrospinis* Guichenot).
1851. *Plectrypops retrospinis* (Guichenot).
Cuba.
Holocentrum retrospinis Guichenot, in Ramon de la Sagra, Hist. Cuba, 1853, 35, pl. 1, fig. 3, Cuba.

Order OO. THORACOSTEI

Suborder HEMIBRANCHII

Family 149. GASTEROSTEIDÆ. Sticklebacks

Genus 627. GASTEROSTEUS Linnæus. *Sticklebacks.*

Gasterosteus Linnæus, Syst. Nat., ed. X, 1758, 295 (*G. aculeatus* Linnæus).
Gasteracanthus Pallas, Zoog. Rosso.-Asiat., III, 1811 (*G. cataphractus* Pallas).

Leiurus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 242 (*Gasterosteus aculeatus* Linnæus).

Merriamella Jordan, Univ. Calif. Publ. Geol., V, 1907, 131 (*M. dorysia* Jordan); fossil form.

1852. *Gasterosteus aculeatus* Linnæus. *Common stickleback.*

Arctic and subarctic regions, in shallow bays and estuaries, very common; also ascending streams, where it loses partially or wholly its bony plates, in Europe, Asia, and America alike. The development of these plates and in some degree of dorsal spines and caudal keel depends on the salinity of the water. Reported *G. williamsoni microcephalus* from irrigation ditch near El Rosario, Lower California, 255 miles south of U. S. border, May 21, 1925, Clinton G. Abbott, collector.

(1. *Forms completely mailed*)

Gasterosteus aculeatus Linnæus, Syst. Nat., ed. X, 1758, 489, Europe.

Gasterosteus cataphractus Pallas, Mém. Acad. Petersb., III, 1811, 325, Kamchatka.

Gasterosteus trachura Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 481, France.

Gasterosteus teraculeatus Lacépède, Hist. Nat. Poiss., III, 1802, 296.

Gasterosteus obolaris Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 500, Kamchatka.

Gasterosteus noveboracensis Cuvier and Valenciennes, loc. cit., 502, pl. 98, fig. 3.

Gasterosteus biaculeatus Shaw, Zool., IV, 1839, 608; after Pennant.

Gasterosteus dimidiatus Reinhardt, Fauna Grœnlandica, 1837, 32, 37, Greenland.

Gasterosteus loricatus Reinhardt, loc. cit., 32, 37, Greenland.

Gasterosteus bailloui Blanchard, Poiss. des eaux douces de France, 1866, 231, Abbeville.

Gasterosteus insculptus Richardson, Last Arctic Voyage, 1854, 10, Pl. XXV, figs. 1, 2, and 3, Northumberland and Puget Sounds.

Gasterosteus serrat Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 47, San Francisco.

(2. *Forms armed anteriorly only*)

Gasterosteus gymnaus Cuvier, Règne Animal, ed. II, 1829, 170, waters of England and northward.

Gasterosteus leiurus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 481, Seine.

Gasterosteus semiarmatus Cuvier and Valenciennes, loc. cit., 493, Havre, France.

Gasterosteus semiloricatus Cuvier and Valenciennes, loc. cit., 494, Baillon.

Gasterosteus spinulosus Jenyns and Yarrell, Man. Brit. Vert., 1835, 350, Edinburgh.

Gasterosteus ponticus Nordmann, in Demidoff, Voy. Russ. Merid., III, 1840, 357, Tauria and Black Sea.

Gasterosteus cuvieri Girard, in Storer's Fishes of Nova Scotia and Labrador, 1849, 254, p. VII, fig. 1, Bras d'Or, Red Bay, Labrador.

Gasterosteus microcephalus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133, Four Creek (Kaweah River), a tributary to Tule Lake (Tulare Lake), San Joaquin Valley, Calif.

Gasterosteus plebeius Girard, loc. cit., 147, Presidio, Calif.

- Gasterosteus inopinatus* Girard, loc. cit., 147, Presidio, Calif.
Gasterosteus pugetti Girard, loc. cit., 1856, 135, Fort Steilacoom, Wash.
Gasterosteus neustrianus Blanchard, Poiss. des eaux douce de France, 1866, 220, Harfleur.
Gasterosteus argentissimus Blanchard, loc. cit., 232, Avignon.
Gasterosteus elegans Blanchard, loc. cit., 234, Cadillac and Langou, 6 pls.
Gasterosteus islandicus Sauvage, Revision des Épinoches, 1874, 20, Iceland.
Gasterosteus atkinsi Bean, Proc. U. S. Nat. Mus., II, 1879, 67, Schoodic Lakes, Maine.

(3. *Forms naked or with one or two plates*)

- Gasterosteus williamsoni* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133, Williamsons Pass, Calif.
Gasterosteus santa-annæ Regan, Ann. Mag. Nat. Hist., 8th ser., IV, 1909, 437, Santa Anna River. Calif.

Genus 628. **GLADIUNCULUS** Jordan and Evermann.

- Gladiunculus* Jordan and Evermann, Proc. Calif. Acad. Sci., ser. 4, XVI, 1927 (Apr. 27), 504 (*Gasterosteus gladiunculus* Kendall=*G. bispinosus* Walbaum).

1853. **Gladiunculus bispinosus** (Walbaum). *Common eastern stickleback.*
 Labrador to New Jersey, near the coast, in salt water; very common in New England.
Gasterosteus bispinosus Walbaum, Artedi Pisc., 1792, 450; after Pennant; said to be "New York," but more likely Hudson's Bay.
Gasterosteus wheatlandi Putnam, Proc., Essex Inst., V, 1867, 4, Nahant, Mass.
Gasterosteus gladiunculus Kendall, Proc. U. S. Nat. Mus., XVIII, 1896, off coast of Maine, near Seguin Island.

Genus 629. **EUCALIA** Jordan.

- Eucalia* Jordan, Man. Vert., ed. 1, 1876, 248 (*Gasterosteus inconstans* Kirtland).

1854. **Eucalia inconstans** (Kirtland). *Brook stickleback.*
 New York to Kansas and northward to the Saskatchewan; Great Lakes region; central Ohio, Indiana, and Illinois.
Gasterosteus inconstans Kirtland, Bost. Jour. Nat. Hist., III, 1841, 273, brooks of Trumbull County, Ohio.
Gasterosteus micropus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 81, Fort Riley, Kans.
Gasterosteus globiceps Sauvage, Revision des Épinoches, 1874, 35, North America.
Eucalia inconstans cayuga Jordan, Man. Vert., ed. 1, 1876, 249, Cayuga Lake, Ithaca, N. Y.

1855. **Eucalia pygmaea** (Agassiz).
 Lake Superior.
 A valid species if the fin rays are D. IV-I, 6; A. I, 6. In *E. inconstans* they are D. IV-I, 10; A. I, 10.
Gasterosteus pygmaeus Agassiz, Lake Superior, 1850, 314, Lake Superior.

Subfamily GASTEROSTEINÆ

Genus 630. **PUNGITIUS** Costa. *Nine-spined sticklebacks.*

- Pungitius* Costa, Mém. Savants Etrangers, Paris, X, 1846 (*Gasterosteus pungitius* L.).
Pygosteus (Brevoort) Gill, Can. Nat., and Cat. Fish. E. Coast N. A., supplement to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 39 (*Gasterosteus occidentalis* Cuvier and Valenciennes=*G. pungitius* Linnæus).
Gasterosteus Sauvage, Révision des Épinoches, 1874, 7 (*Gasterosteus pungitius* Linnæus).

1856. *Pungitius pungitius* (Linnæus). *Nine-spined stickleback*.

Gasterosteus pungitius Linnæus, Syst. Nat., ed. X, 1758, 296, Europe;
after *Gasterosteus aculeis* in dorso decem Artedi.

Gasterosteus lævis Cuvier, Règne Animal, ed. 2, II, 1829, 170, streams of France.

Gasterosteus occidentalis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 509, Newfoundland; not *G. occidentalis* Linnæus, unrecognized, probably a species of *Carangidæ*.

Gasterosteus concinnus Richardson, Fauna Bor.-Amer., III, 1836, 57, Saskatchewan River and Great Bear Lake.

Gasterosteus nebulosus Agassiz, Lake Superior, 1850, 310, pl. 4, fig. 4, Lake Superior.

Gasterosteus dekayi Agassiz, Lake Superior, 1850, 311, New York.

Gasterosteus lotharingus Blanchard, Poiss. France, 1866, 244, Lorraine.

Gasterosteus breviceps Blanchard, loc. cit., 1866, 245, Caen, France.

Gasterosteus blanchardi Sauvage, Révision des Epinoches, 1874, 32, New York.

1857. *Pungitius mainensis* (Storer).

Kennebec River, Me.; a form or species with seven dorsal spines.

Gasterosteus mainensis Storer, Bost. Jour. Nat. Hist., I, 1837, 464, Kennebec County, Me.

1858. *Pungitius brachypoda* (Bean).

Baffins Bay, Greenland. A form with 10 dorsal spines and the ventral spines very small.

Gasterosteus pungitius brachypoda Bean, Bull. U. S. Nat. Mus., XV, 1879, 129, Oosooadlin Mountain, Cumberland Gulf, Greenland.

Subfamily APELTINÆ**Genus 631. *APELTES* DeKay. *Four-spined stickleback*.**

Apeltes DeKay, N. Y. Fauna: Fishes, 1842, 87 (*Gasterosteus quadracus* Mitchill).

1859. *Apeltes quadracus* (Mitchill).

Maine to New Jersey, in salt water only.

Gasterosteus quadracus Mitchill, Trans. Lit. and Phil. Soc., I, 1815, 430, New York.

Gasterosteus apelles Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 505, no locality.

Gasterosteus millipunctatus Ayres, Bost. Jour. Nat. Hist., I, 1842, 294, Old Mans Harbor, Long Island.

Subfamily SPINACHINÆ**Genus 632. *SPINACHIA* Cuvier.**

Spinachia Cuvier, Règne Anim., ed I, 1817, 320 (*Gasterosteus spinachia* Linnæus).

Polycanthus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 242 (*Gasterosteus spinachia* Linnæus).

Gastræa Sauvage, Révision des Epinoches, 1874, 7 (*Gasterosteus spinachia* Linnæus).

1860. *Spinachia spinachia* (Linnæus).

Coasts of northern Europe; recorded from Newfoundland.

Gasterosteus spinachia Linnæus, Syst. Nat., ed. X, 1758, 442.

Spinachia vulgaris Fleming, Brit. Anim., 1828, 210.

Gasterosteus marinus Gronow, Cat. Fish., 1854, 168.

Family 150. AULORHYNCHIDÆ**Genus 633. *AULORHYNCHUS* Gill.**

Aulorhynchus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 169 (*A. flavidus* Gill).

Autiscops Peters, Berliner Monatsberichte, 1866, 570 (*A. spinescens* Peters).

1861. *Aulorhynchus flavidus* Gill.
Coast of California, from San Nicolas Island and Monterey northward to Sitka, Alaska.
Aulorhynchus flavidus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 169, coast of Washington.

Suborder LOPHOBRANCHII

Family 151. SYNGNATHIDÆ. Pipefishes and seahorses

Subfamily SYNGNATHINÆ

Genus 634. DERMATOSTETHUS Gill.

Dermatostethus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 283 (*D. punctipinnis* Gill).

1862. *Dermatostethus punctipinnis* Gill.

San Diego, California.

Dermatostethus punctipinnis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 283, San Diego, Calif.; not lately recognized; the genus perhaps of doubtful value.

Genus 635. SYNGNATHUS Linnæus.

Syngnathus Linnæus, Syst. Nat., ed. X, 1858, 336 (*Syngnathus acus* L., the proper type as decided by the Internat. Com. Zool. Nomencl.).

Siphostoma Rafinesque, Caratteri, 1810, 18 (*Syngnathus pelagicus* Linnæus).

1863. *Syngnathus californiensis* Storer. Great pipefish.

Santa Barbara to Monterey and northward.

Syngnathus californiensis Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 73, California.

1864. *Syngnathus griseolineatus* Ayres.

Pacific coast of the United States, from Monterey northward to Puget Sound and southeastern Alaska.

Syngnathus griseolineatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 14, San Francisco Bay.

Syngnathus abboti Girard, Pac. R. R. Survey, Fishes, X, 1858, 346, San Francisco.

1865. *Syngnathus leptorhynchus* Girard.

West coast of America from San Francisco to San Diego.

Syngnathus brevirostris Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 156, San Diego; name preoccupied.

Syngnathus leptorhynchus Girard, loc. cit., 156, San Diego, Calif.

Syngnathus dimidiatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 284, San Diego; substitute for *brevirostris*, preoccupied.

1866. *Syngnathus arundinaceus* Girard.

Coast of California.

Syngnathus arundinaceus Girard, Pac. R. R. Surv., X, 1858, 346, coast of California.

1867. *Syngnathus carinatus* (Gilbert).

Gulf of California.

Siphostoma carinatum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 547, Gulf of California, lat. 31° 31' N., long. 114° 19' W., at Albatross stations 3027 and 3028.

1868. *Syngnathus auliscus* (Swain).

Southern California.

Siphostoma auliscus Swain, Proc. U. S. Nat. Mus., V, 1882, 310, Santa Barbara and San Diego, Calif.

1869. *Syngnathus barbaræ* (Swain).

California coast at Santa Barbara. Rare; not reported recently.

Siphostoma barbaræ Swain, Proc. U. S. Nat. Mus., VII, 1884, 238, Santa Barbara, Calif.

1870. *Syngnathus mackayi* (Swain and Meek).
Key West to Yucatan.
Siphostoma mackayi Swain and Meek, Proc. U. S. Nat. Mus., VII,
1884, 239, Key West, Fla.
1871. *Syngnathus floridæ* (Jordan and Gilbert).
Virginia to Texas and Porto Rico.
Siphostoma floridæ Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
263, Pensacola, Fla.
1872. *Syngnathus poeyi* (Jordan and Evermann).
Habana.
Syngnathus tenuis Poey, Synopsis, 1867, 444, Cuba; name preoccupied.
Siphostoma poeyi Jordan and Evermann, Fish. North and Mid. Amer.,
1896, 766, Habana, Cuba; substitute for *S. tenuis*, preoccupied.
1873. *Syngnathus elucens*⁴⁰ Poey. *Pipefish*.
Cuba; Florida Keys; Porto Rico.
Syngnathus elucens Poey, Synopsis, 1867, 443, Habana.
Syngnathus flavirostris Poey, Enumeratio, 1876, 178, Habana.
Syngnathus picturatus Poey, loc. cit., 178, Habana.
Syngnathus linea Poey, loc. cit., 178, Habana.
Syngnathus marmoreus Poey, loc. cit., 178, Habana.
Syngnathus ascendens Poey, loc. cit., 179, Habana.
1874. *Syngnathus rousseau* Kaup.
West Indies; known from Jamaica, St. Lucia, and Martinique.
Syngnathus rousseau Kaup, Lophobranchii, 1856, 40, Martinique.
1875. *Syngnathus jonesi* Günther. *West Indian pipefish*.
Bermudas and Porto Rico.
Syngnathus jonesi Günther, Ann. Mag. Nat. Hist., ser. 4, XIV, 1874,
8, 455, Bermudas.
1876. *Syngnathus fistulatus* Peters.
Puerto Cabello, near Colon.
Syngnathus fistulatus Peters, Monatsber., Ak. Wiss. Berl., 1868, 456,
Puerto Cabello, near Aspinwall.
1877. *Syngnathus pelagicus* Linnæus.
Open sea in the Atlantic and the Mediterranean; doubtfully recorded
from the West Indies; some other species, perhaps *S. fistulata*, being
mistaken for it.
Syngnathus pelagicus Linnæus, Syst. Nat., ed. I, 1758, open sea in
floating seaweed.
Syngnathus ethon Risso, Eur. Mérid., III, 1826, 182, Nice, France.
1878. *Syngnathus robertsi* (Jordan and Rutter).
West Indies and Jamaica; Caribbean Sea.
Siphostoma robertsi Jordan and Rutter, Proc. Acad. Nat. Sci. Phila.,
XLIX, 1897, 97, Jamaica.
1879. *Syngnathus brachycephalus* Poey.
Tortugas; Cuba.
Syngnathus brachycephalus Poey, Synopsis, 1867, 444, Habana, Cuba.
1880. *Syngnathus breviceaudus* (Meek).
Boca del Rio, Vera Cruz.
Siphostoma breviceaudum Meek, Field Col. Mus., Zool., V, 1904, 163,
Boca del Rio, Mexico.
1881. *Syngnathus crinigerum* (Bean and Dresel).
Pensacola and Key West, to Abrolhos Reef, Brazil.
Siphostoma crinigerum Bean and Dresel, Proc. Biol. Soc. Wash., II,
1884, 99, Pensacola, Fla.
1882. *Syngnathus sinaloæ* (Jordan and Starks).
Pacific coast of Mexico.
Siphostoma sinaloæ Jordan and Starks, Proc. Calif. Acad. Sci., 3d ser.,
VI, 1896, 268, Mazatlan, Mexico.

* Some of the nominal species here included may prove to be valid.

1883. *Syngnathus arctus* (Jenkins and Evermann).
Gulf of California, Guaymas.
Siphostoma arctum Jenkins and Evermann, Proc. U. S. Nat. Mus., XI,
1888, 137, Bay of Guaymas, Sonora, Mexico.
1884. *Syngnathus starksi* (Jordan and Culver).
Estuaries about Mazatlan.
Siphostoma starksi Jordan and Culver, Proc. Calif. Acad. Sci., 3d ser.,
V, 1895, 416, Pl. XXX, Rio Presidio, Mazatlan, Mexico.
1885. *Syngnathus dendriticus* (Barbour).
Ireland Island, Bermudas.
Siphostoma dendriticum Barbour, Bull. Mus. Comp. Zool., XLVI,
No. 7, 1904-1906, 115, Ireland Island, Bermudas.
1886. *Syngnathus mindii* Meek and Hildebrand.
Panama.
Syngnathus mindii Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
XV, 1923, 261, Pl. XVIII, fig. 2; brackish creek near Mindi, Canal
Zone, Panama.
1887. *Syngnathus elcapitensis* Meek and Hildebrand.
Streams, west coast of Panama.
Syngnathus elcapitanense Meek and Hildebrand in Meek, Field Mus.
Nat. Hist., Zool., X, 1914, 119, Rio Mamona at El Capitan, Panama.
1888. *Syngnathus tweedliei* Meek and Hildebrand.
Panama.
Syngnathus tweedliei Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., XV, 1923, 259, Pl. XVIII, fig. 1, Chame Point, Panama.
1889. *Syngnathus torrei* (Nichols).
Cuba.
Siphostoma torrei Nichols, Bull. Amer. Mus. Nat. Hist., XXXI, 1912,
183, fig. 1, Matanzas, Cuba.
- Genus 636. *SYRICTES* Jordan and Evermann.
Syrictes Jordan and Evermann Proc. Calif. Acad. Sci., XVI, Apr. 27,
1927, 504 (*Syngnathus fuscus* Storer).
1890. *Syrictes fuscus*⁴¹ (Storer). *Common pipefish; Green pipefish; Billfish.*
Atlantic coast of United States from Maine to Virginia; very common
northward.
Syngnathus fuscus Storer, Rept. Fish. Mass., 1839, 162, Nahant, Mass.
Syngnathus peckianus Storer, Rept. Fish. Mass., 1839, 163, Holms
Hole, Marthas Vineyard.
Syngnathus peckii Storer, Rept. Fish. Mass., 1839, 3; name only.
Syngnathus fasciatus DeKay, N. Y. Fauna: Fishes, 1842, 319, pl. 54,
fig. 174, New York.
Syngnathus viridescens DeKay, loc. cit., 321, pl. 54, fig. 176, New York.
Syngnathus de kayi Duméril, Hist. Nat. Poiss., II, 1870, 569, New York.
Syngnathus milbertianus Duméril, loc. cit., 573, New York.
1891. *Syrictes affinis* (Günther).
Gulf of Mexico, on coast of Louisiana.
Syngnathus affinis Günther, Cat., VIII, 1870, 163, Louisiana.
1892. *Syrictes scovelli* (Evermann and Kendall).
Coast of Texas and both coasts of Florida.
Siphostoma scovelli Evermann and Kendall, Proc. U. S. Nat. Mus.,
XVIII, 1895, 113, Shamrock Point, Corpus Christi, Tex.
1893. *Syrictes louisianæ* (Günther).
Atlantic and Gulf coasts of the United States; North Carolina to Texas
and south to Key West.
Syngnathus pelagicus, var., Linnæus, Syst. Nat., ed. XII, 1766, 416,
Charleston, S. C.
Syngnathus louisianæ Günther, Cat., VIII, 1870, 160, New Orleans, La.
1894. *Syrictes bairdianus* (Duméril).
West coast of Lower California.
Syngnathus bairdianus Duméril, Hist. Nat. Poiss., II, 1870, 574, "Coast
of Mexico, near California."

⁴¹ The names *fuscus* and *peckianus* are of the same date. The author who first perceived this identity chose the second name in spite of the page priority of *fuscus*.

1895. *Syrichtes exilis* (Osburn and Nichols).

Gulf of California.

Siphostoma exile Osborn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 153, fig. 7, west San Benito Island, Port San Bartolome.**Genus 637. HIPPICHTHYS Bleeker.***Hippichthys* Bleeker, Verh. Batav. Genootsch., XXII, 1849, 15 (*H. heptagonus* Bleeker); not *Hippocampus heptagonus* Rafinesque.*Corythoichthys* Kaup, Archiv Naturgesch., 1853, 231 (*C. albirostris* Heckel MS. Kaup).**1896. *Hippichthys albirostris* (Heckel).**

West Indies, north to Pensacola and Key West; south to Bahia, about coral reefs.

Corythoichthys albirostris Heckel in Kaup, Archiv Naturgesch., 1853, 231, Mexico; Bahia; type examined.*Siphostoma zatropis* Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 264, Snapper Banks, Pensacola.**1897. *Hippichthys cayorum* (Evermann and Kendall).**

Key West, Fla.; Porto Rico.

Corythoichthys cayorum Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 128, pl. 7, fig. 7, near Crawfish Bar, Key West, Fla.**1898. *Hippichthys spicifer* (Rüppell).**

Tropical Pacific; recorded from Tehuantepec.

Syngnathus spicifer Rüppell, Neue Wirb., Fische, about 1830, 143.**Genus 638. DORYICHTHYS Kaup.***Doryichthys* Kaup, Archiv Naturgesch., 1853, 233 (*D. bilineatus* Heckel).**1899. *Doryichthys lineatus* Valenciennes.**

Tropical parts of Atlantic from Cuba to Brazil.

Doryichthys lineatus Valenciennes, in Kaup, Lophobranchii, 1856, 59, Bahia, Mexico, and Guadeloupe.**Genus 639. DORYRHAMPHUS Kaup.***Doryrhamphus* Kaup, Archiv Naturgesch., 1853, 233 (*D. excisus* Kaup).*Choeroichthys* Kaup, loc. cit., 1853, 233 (*C. valenciennesi* Kaup).**1900. *Doryrhamphus californiensis* Gill.**

Gulf of California.

Doryrhamphus californiensis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 284, Cape San Lucas, Lower California.**1901. *Doryrhamphus sierra* Nichols.**

Porto Rico.

Doryrhamphus sierra Nichols, Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, 145, fig. 2, Porto Rico.**Genus 640. ACUS⁴² Swainson.***Acus* Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 333 (*Syngnathus æquoreus* "Yarrell").*Osphrolax* Cope, Proc. Acad. Nat. Sci. Phila., XXVII, 1875, 450 (*O. pellucidus* Cope).**1902. *Acus æquoreus* (Linnaeus). *Ocean pipefish*.**

Open sea along coasts of Europe; recorded from New Orleans, some other species probably mistaken for it.

Syngnathus æquoreus Linnaeus, Syst. Nat., ed. X, 1758, 417, open sea.*Syngnathus sibbaldi* Walbaum, Artedi Pisc., 1792, 6, Scotland.*Nerophis maculata* Rafinesque, Indice, 1810, 57, Palermo, Italy.*Nerophis anguineus* Kaup, Lophobr., 1856, 65, Brownsey, Dorsetshire; Berwick.**1903. *Acus martinicensis* (Bibron) Kaup.**

West Indies.

Nerophis martinicensis (Bibron) Kaup, Lophobr., 1856, 67, Martinique.

⁴² We may adopt the generic name *Acus* for the species of the old genus *Nerophis* (Rafinesque, Indice, Steil., 1810, 57, type *Syngnathus ophidion* L.) in which a small caudal fin is present, the tail not ending in a filament, as is the case in the type of *Nerophis* (*Syngnathus ophidion* L.) The name *Acus*, variously used by authors, is not preoccupied in binomial nomenclature.

1904. *Acus heckeli* (Kaup).
Caribbean Sea.
Nerophis heckeli Kaup, Lophobr., 1856, 66, Bogota; evidently not the exact locality.
1905. *Acus pellucidus* (Cope).
Open Atlantic.
Osphrolax pellucidus Cope, Proc. Acad. Nat. Sci. Phila., XXVII, 1875, 450, pl. 25, figs. 1 to 4, open Atlantic Ocean; a larval form of doubtful relationships and differing from *Acus* in the very short dorsal (D. 16; about 40 in *Acus*).
- Subfamily HIPPOCAMPINÆ
- Genus 641. **NANNOCAMPUS** Günther.
Nannocampus Günther, Cat., VIII, 1870, 178 (*N. subosseus* Günther).
1906. *Nannocampus nanus* Rosen.
Bahama Islands.
Nannocampus nanus Rosen, Arsskr. Univ. Lund, VII, 1912, 50, Bahamas.
- Genus 642. **HIPPOCAMPUS** Rafinesque.
Hippocampus Rafinesque, Caratteri, 1810, 18 (*Syngnathus hippocampus* Linnæus).
1907. *Hippocampus hudsonius* DeKay. *Common American seahorse; Horsefish.*
Atlantic coast of United States, from Cape Cod to the Tortugas.
Hippocampus hudsonius DeKay, N. Y. Fauna: Fishes, 1842, 322, p. 53, fig. 171, New York.
Hippocampus lævicaudatus Heckel, in Kaup, Lophobranchii, 1856, 16, North America.
1908. *Hippocampus ingens* Girard. *Caballito del mar.*
Pacific coast from San Diego to Mazatlan; rare.
Hippocampus ingens Girard, Pac. R. R. Surv., Fishes, X, 1858, 342, San Diego, Calif.
Hippocampus gracilis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 282, Cape San Lucas, Lower California.
1909. *Hippocampus brunneus* Bean.
Bermudas.
Hippocampus brunneus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 32, Long Bird Island, Bermudas.
1910. *Hippocampus punctulatus* Guichenot. *Caballito del mar; Seahorse; Horsefish.*
Tropical parts of the Atlantic; common in the West Indies, Brazil, and western Africa; Gulf Stream; Beaufort, N. C.
Hippocampus punctulatus Guichenot in Ramon de la Sagra, Hist. Île. Cuba, Poiss., 1853, 174, pl. 5, fig. 2, Cuba.
Hippocampus marginalis Heckel, in Kaup, Lophobr., 1856, 15, Mexico.
Hippocampus fasciularis Heckel, in Kaup, loc. cit., 15, Mexico.
1911. *Hippocampus stylifer* Jordan and Gilbert.
Coasts of Florida; Snapper Banks off Pensacola and Tampa; Gulf Stream.
Hippocampus stylifer Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 265, Snapper Banks, Gulf of Mexico.
1912. *Hippocampus zosteræ* Jordan and Gilbert.
Pensacola Bay, Fla.
Hippocampus zosteræ Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 265, Grand Lagoon, Pensacola, Fla.; smallest of the seahorses,

Order PP. AULOSTOMI

Family 152. AULOSTOMIDÆ. Trumpetfishes

- Genus 643. **AULOSTOMUS** Lacépède.
Aulostomus Lacépède, Hist. Nat. Poiss., V, 1803, 357 (*A. chinensis* Lacépède).
Polyptericthys Bleeker, Nat. Tijdschr., Neder-Indie, IV, 1853, 608 (*P. valentini* Bleeker).
Aulostoma Schlegel, change of spelling.

1913. *Aulostomus maculatus* Valenciennes. *Trompetero*; *Trumpetfish*.
Caribbean Sea, north to southern Florida.
? *Aulostomus maculatum* Valenciennes, in Cuvier, Règne Anim., III,
Poiss., 1845, pl. 92, fig. 2.
Aulostoma coloratum Müller and Troschel, in Schomburgk, History
Barbados, 1848, 673, Barbados.
1914. *Aulostomus cinereus* (Poey).
Cuba.
Aulostoma cinereum Poey, Synopsis, 1867, 386, Cuba.

Family 153. FISTULARIIDÆ. Cornetfishes

Genus 644. FISTULARIA Linnæus.

- Fistularia* Linnæus, Syst. Nat., ed. X, 1758, 312 (*F. tabacaria* Linnæus).
Cannorhynchus Cantor, Jour. Roy. Asiat. Soc. Bengal, XVIII, 1849
(*Fistularia tabacaria* Linnæus); substitute name, *Fistularia* having
been used in 1750 as a pre-Linnæan name for a group of polyps.
Flagellaria Gronow, Cat. Fishes, 1854 (*F. fistularis* Gronow = *Fistularia*
tabacaria Linnæus).
Solenostomus (Gronow) Gill, Cat. Fish. East Coast. N. A., Supl. to
Proc. Acad. Nat. Sci. Phila., XIII, 1861, 38 (*Fistularia tabacaria*
Linnæus).
1915. *Fistularia tabacaria* Linnæus. *Trumpetfish*; *Trompetero*; *Tobacco*
trumpetfish; *Unarmed trumpetfish*.
West Indies and neighboring seas; northward to Carolina and Florida,
and occasionally to Long Island.
Fistularia tabacaria Linnæus, Syst. Nat., ed. X, 1758, 312, tropical
America.
Fistularia nco-boracensis Mitchill, Trans. Lit. Phil. Soc. Phila., I,
1815, 437, New York.
Aulostome macgravi Castelnau, Anim. Nouv. Amer. Sud, 1855, 30,
Bahia, Rio Janeiro.
Flagellaria fistularis Gronow, Cat. Fish., 1854, 146, American Ocean.
1916. *Fistularia serrata* ⁴³ Cuvier. *Flutemouth*.
Western Pacific and other warm seas; Bermuda; Cuba.
Fistularia serrata Cuvier, Règne Anim., ed. 1, II, 1817, 389, 34; after Bloch.
? *Fistularia immaculata* Cuvier, loc. cit., 349, Sea of the Indies.
Fistularia commersonii Rüppell, Neue Wirbelthiere, 1834, 142, Red Sea.
Fistularia villosa Klunzinger, Abh. Zool. Ges. Wien, XXI, 1871, 516,
Red Sea.
1917. *Fistularia petimba* Lacépède. *Corneta*.
East Indies; Australia; China; Panama; Lower California; Japan;
Hawaii.
Fistularia petimba Lacépède, Hist. Nat. Poiss., V, 1803, 349, New
Britain, Isle of Reunion, equatorial Pacific.
Fistularia depressa Günther, Challenger rept. Shore Fishes, Zoology, I,
pt. 6, 1880, 69, pl. 32, fig. D, Sulu Archipelago, station 200, 255
fathoms.
1918. *Fistularia corneta* Gilbert and Starks.
Pacific coast of tropical America; Panama.
Fistularia corneta Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904,
56, Pl. X, Bay of Panama; Mazatlan.

Family 154. MACRORHAMPHOSIDÆ. Snipefishes

Genus 645. MACRORHAMPHOSUS Lacépède. *Snipefishes*.

- Macrorhamphosus* Lacépède, Hist. Nat. Poiss., V, 1803, 136 (*Silurus*
cornutus Forskål = *Balistes scolopax* Linnæus).
Centriscus Cuvier, Règne Animal, ed. 1, II, 1817, 350; not *Centriscus*
Linnæus.
Macrognathus Gronow, Cat. Fishes, 1854, 147 (*Centriscus scolopax*
Linnæus).

⁴³ Weber call this species *villosa* but quotes *serrata*? in synonymy. The synonymy of *serrata* and *petimba* seem hopelessly confused.

1919. *Macrorhamphosus scolopax* (Linnaeus). *Snipefish; Trumpetfish; Bellowsfish*.
Mediterranean Sea, northward to southern England, accidental on our North Atlantic Coast.
Balistes scolopax Linnaeus, Syst. Nat., ed. X, 1758, 329, Mediterranean.
Silurus cornutus Forskål, Descr. Anim., 1775, 66, Marseilles.
1920. *Macrorhamphosus hawaiiensis* Gilbert.
Deep waters about Hawaii; once taken off San Pedro, Calif. (W. F. Thompson).
Macrorhamphosus hawaiiensis Gilbert, Bull. U. S. Fish Com., XXIII, 1903 (1905), 613, Laysan Island.

Order QQ. PERCOMORPHI

Suborder PERCESOCES

Family 155. ATHERINIDÆ. Silversides; Hardheads; Pescados del Rey; Peixe Rey

Genus 646. HEPSETIA Bonaparte.

Hepsetia Bonaparte, Fauna Italica, Fasc. 91 (no pages), 1837 (*Atherina boyeri* Risso).

Atherinomorus Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 730 (*Atherina laticeps* Poey = *Atherina stipes* Müller and Troschel).

1921. *Hepsetia stipes* (Müller and Troschel). *Cabozote, Bristle herring*.
West Indies; common north to western Florida.
? *Atherina tæniata* Spix in Agassiz, Pisc. Bras., 1829, 135, pl. 30, fig. 2, Atlantic Ocean, off Brazil.
Atherina stipes Müller and Troschel, in Schomburgk, Hist. Barbados, 1847, 671, Barbados.
Atherina laticeps, Poey, Memorias, II, 1861, 265, Habana.
Atherina velicæna Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 342, Clear Water Harbor, Fla.

1922. *Hepsetia evermanni* (Eigenmann).
Cuba; San Cristobal; Pinar del Rio.
Atherina evermanni Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 228, fig. 9, San Cristobal, Cuba.

Genus 647. ATHERINA (Artedi) Linnaeus. *Friars*.

Atherina Artedi in Linnaeus, Syst. Nat., ed. X, 1758, 315 (*Atherina hepsetus* Linnaeus).

Aphia Risso, Europ. Mérid. 1826 (*Aphia meridionalis* Risso = apparently very young of *Atherina hepsetus* L.), but Risso describes their laying of eggs, and may refer to some other species.

Tæniomembras Ogilby, Proc., Linn. Soc. New South Wales, XXIII, 1898, 41 (*Atherina microstoma* Günther).

1923. *Atherina aræa* Jordan and Gilbert.
Gulf of Mexico at Key West, Cozumel, and south to Caribbean Sea.
Atherina aræa Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 27, Key West, Fla.

1924. *Atherina harringtonensis* Goode.
Bermudas and south to Curaçao.
Atherina harringtonensis Goode, Amer. Jour. Sci. Arts, 3d ser., XIV, No. 82, 1877, 297, Bermuda Islands.

1925. *Atherina microps* Poey.
Habana.
Atherina microps Poey, Memorias, II, 1861, 266, Habana, Cuba.

1926. *Atherina carolina* Cuvier and Valenciennes.
South Carolina (reference doubtful).
Atherina carolina Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 330 (445), "Carolinas."

Genus 648. MENIDIA Bonaparte.

Menidia Bonaparte, Fauna Italica, Tome III, Pesci, in description of *Atherina hepsetus* p. 91, 1836, no type, *Atherina menidia* Linnaeus intended.

Ischnomembras Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 730, pl. 42, "Gabun River, Gabun County, West Africa," probably an error.

Phoxargyrea Fowler, loc. cit., 1903, 732, *Phoxargyrea dayi* Fowler from "India," doubtless an error.

Subgenus ISCHNOMEMBRAS Fowler.**1927. *Menidia beryllina* (Cope). *Silverside; Fresh-water silverside.***

Coastwise streams, Massachusetts to Florida and lower Mississippi, north to Tennessee.

?*Atherinichthys gracilis* Günther, Cat., III, 1861, 405, no locality given. *Christoma beryllinum* Cope, Trans. Amer. Phil. Soc., 1866, 403, Potomac River, near Washington.

Menidia audens Hay, Bull. U. S. Fish Com., II, 1882, 64, Memphis, Tenn., and Vicksburg, Miss.

Ischnomembras gabunensis Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 731, pl. 42, Gabon River, West Africa; probably an error.

1928. *Menidia beryllina cerea* Kendall.

Atlantic coast, Massachusetts to South Carolina.

Menidia beryllina cerea Kendall, Rept. U. S. Fish Com., XXVII, 1901, 261, Waquoit Bay, Mass.

1929. *Menidia peninsulæ* (Goode and Bean).

Florida and Gulf coast, in salt water.

Chirostoma peninsulæ Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 148, Pensacola.

1930. *Menidia peninsulæ atrimentis* Kendall.

Florida; South Lake, Lake Monroe, Salt Lake, etc.

Menidia peninsulæ atrimentis Kendall, Rept. U. S. Fish Com., XXVII, 1901, 258, South Lake, Fla.

1931. *Menidia menidia* (Linnaeus).

Atlantic coast, Cape Hatteras to Florida.

Atherina menidia Linnaeus, Syst. Nat., ed. XII, 1766, 519, Charleston, S. C.

Atherina boscii Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 345 (465), Charleston.

Menidia dentex Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 429, St. Johns River, Fla.

1932. *Menidia conchorum* Hildebrand and Ginsberg.

Key West, Fla.

Menidia conchorum Hildebrand and Ginsberg, Bull. U. S. Bur. Fish., XLII, 1926 (1927), 207, fig. 1, Boca Chica, Key West, Fla.

1933. *Menidia notata* (Mitchill). *Silversides; Priar; Whitebait.*

Atlantic coast of United States, Nova Scotia to Cape May, intergrading south with *M. menidia*.

Atherina notata Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 446, New York.

Atherina viridescens Mitchill, loc. cit., 447, New York.

Phoxargyrea dayi Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 732, pl. 41, "India"; no doubt an error in locality.

1934. *Menidia starksi* Meek and Hildebrand.

Panama.

Menidia starksi Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 267, Pl. XX, fig. 2, Taboga Island, Panama.

1935. *Menidia sardina* (Jenkins and Evermann). *Pez del rey.*

Gulf of California.

Atherina sardina Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 137, Guaymas, Sonora, Mexico.

1936. *Menidia clara* Evermann and Jenkins.
Gulf of California.
Menidia clara Evermann and Jenkins, Proc. U. S. Nat. Mus., XIII,
1891, 136, Guaymas, Sonora, Mexico.
- Genus 649. **ARCHOMENIDIA** Jordan and Hubbs.
Archomenidia Jordan and Hubbs, Rev. Silversides, 1919, 54 (*Atherin-
ichthys sallæ* Regan).
1937. *Archomenidia sallæ* (Regan).
Mexico.
Atherinichthys sallæ Regan, Proc. Zool. Soc. Lond., 1903, 60, Mexico.
- Genus 650. **HUBBESIA** Jordan.
Hubbesia Jordan, Proc. U. S. Nat. Mus., LV, 1920 (May 2, 1919), 310
(*Menidia gilberti* Jordan and Bollman).
1938. *Hubbesia gilberti* (Jordan and Bollman).
Panama.
Menidia gilberti Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889,
155, Panama.
- Genus 651. **MEMBRAS** Bonaparte.
Membras Bonaparte, Fauna Italica, fasc. 91 (not paged), 1837 (type
not named directly, *Atherina martinica* Cuvier and Valenciennes being
indicated).
1939. *Membras martinicus* (Cuvier and Valenciennes).
Martinique.
Atherina martinica Cuvier and Valenciennes, Hist. Nat. Poiss., X,
1835, 340 (459), Martinique.
1940. *Membras beani* (Meek and Hildebrand).
Atlantic waters of Panama.
Kirtlandia beani Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
XV, 270, Pl. XXI, Fox Bay, Colon.
- Genus 652. **KIRTLANDIA** Jordan and Evermann.
Kirtlandia Jordan and Evermann, Fishes North and Mid. Amer., 1896,
794 (*Chirostoma vagrans* Goode and Bean).
1941. *Kirtlandia vagrans* (Goode and Bean). *Rough silverside*.
Gulf of Mexico; Florida to Texas; occasionally northward.
Chirostoma vagrans Goode and Bean, Proc. U. S. Nat. Mus., II, 1879,
148, Pensacola, Fla.
1942. *Kirtlandia lacinata* (Swain). *Silverfish; Whitebait; Silversides*.
Lower Chesapeake to South Carolina, intergrading with *K. vagrans*.
Menidia vagrans lacinata Swain, in Jordan and Gilbert, Synopsis, 1882,
908, Beaufort, N. C.
- Genus 653. **THYRINA** Jordan and Culver.
Thyrina Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., 3d ser.,
V, 1895, 419 (*Atherinella evermanni* Jordan and Culver).
Melaniris Meek, Field Mus.-Zool., III, 1902, 117 (*Melaniris balsanus*
Meek).
1943. *Thyrina crystallina* Jordan and Culver.
Rio Presidio near Mazatlan, Sinaloa.
Thyrina crystallina Jordan and Culver, in Jordan, Proc. Calif. Acad.
Sci., 3d ser., V, 1895, 420, Rio Presidio, below Presidio, Sinaloa.
1944. *Thyrina evermanni* Jordan and Culver.
West coast of Mexico; Mazatlan.
Thyrina evermanni Jordan and Culver, Proc. Calif. Acad. Sci., 3d ser.,
V, 1895, 419, Mazatlan, Mexico.
1945. *Thyrina guija* Hildebrand. *Pepesca; Manjuda; Alfiler; Rovalete*.
Lake Guija, Rio del Desague near Lake Guija and Rio Lempa at
Suchitoto and San Marcos, El Salvador.
Thyrina guija Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 264,
fig. 18, Lake Guija, El Salvador.

1946. *Thyrina balsana* (Meek).
Mexico, Rio Balsas, Guerrero.
Melaniris balsanus Meek, Pub. Field Col. Mus., Zool., III, 1902, 117,
Rio Balsas, at Balsas.
1947. *Thyrina guatemalensis* (Günther).
Lakes of Huamachal.
Atherinichthys guatemalensis Günther, Proc. Zool. Soc. London, 1864,
151, Lakes of Huamachal, Pacific coast of Guatemala.
1948. *Thyrina sardina* (Meek). *Sardina*.
Lakes Nicaragua and Managua.
Melaniris sardina Meek, Field Col. Mus., Zool., VII, 1907, 114, Lake
Managua, Nicaragua.
Chiostoma guatemalensis Gill, Proc. Acad. Nat. Sci. Phila., XXIX,
1877, 187, Lake Nicaragua; not of Günther.
1949. *Thyrina chagresi* (Meek and Hildebrand).
Streams of Atlantic slope of Panama.
Menidia chagresi Meek and Hildebrand, Field Mus. Nat. Hist., Zool.,
X, 1914, 119, Rio Chagres at Gorgona, Zent and Parismina, Costa
Rica.
1950. *Thyrina meeki* Miller.
Rio Motagua, Guatemala.
Thyrina meeki Miller, Bull. Amer. Mus. Nat. Hist., XXIII, 1907,
110, fig. 2, Rio Motagua, east coast of Guatemala.
- Genus 654. **THYRINOPS** Hubbs.
Thyrinops Hubbs, Proc. Acad. Nat. Sci. Phila., LXIX, 1918, 306
(*Atherinichthys pachylepis* Günther).
1951. *Thyrinops pachylepis* (Günther).
Panama.
Atherinichthys pachylepis Günther, Proc. Zool. Soc. Lond., 1864, 25,
Panama.
- Genus 655. **MELANORHINUS** Metzelaar.
Melanorhinus Metzelaar, Tropisch Atl. Visschen, 1919, 38 (*M. boeki*
Metzelaar).
1952. *Melanorhinus boeki* Metzelaar.
West Indies.
Melanorhinus boeki Metzelaar, Trop. Atl. Visschen, 1919, 38, Oyster
Pond, St. Martin Island.
- Genus 656. **XENATHERINA** Regan.
Xenatherina Regan, Biologia Centrali Amer., Pisces, 1906, 64 (*Menidia*
lisa Meek).
1953. *Xenatherina lisa* (Meek).
Streams of Vera Cruz, Mexico.
Menidia lisa Meek, Field Col. Mus., Pub. Zool., V, 1904, 182, Refugio,
Vera Cruz, Basin of Rio Papaloapam, Mexico.
- Genus 657. **ATHERINELLA** Steindachner.
Atherinella Steindachner, Ichth. Beitr., II, 1875, 35 (*A. panamensis*
Steindachner).
1954. *Atherinella panamensis* Steindachner.
Panama.
Atherinella panamensis Steindachner, Ichth. Beitr., II, 1875, 35,
Panama.
- Genus 658. **EURYSTOLE** Jordan and Evermann.
Eurystole Jordan and Evermann, Fishes North and Mid. Amer., 1896,
802 (*Atherinella eriarcha* Jordan and Gilbert).
1955. *Eurystole eriarcha* (Jordan and Gilbert).
West coast of Mexico; Mazatlan.
Atherinella eriarcha Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
348, Mazatlan, Mexico.

Genus 659. CHIROSTOMA Swainson. *Pescados blancos.*

Chirostoma Swainson, Class. Fishes, etc., II, 1839, 243 (*Atherina humboldtiana* Cuvier and Valenciennes).

Atherinoides Bleeker, Verh. Bat. Gen., Japan, XXV, 1853, 40 (*Chirostoma vomerina* Cuvier and Valenciennes = *Atherina humboldtiana* Cuvier and Valenciennes).

Atherinichthys Bleeker, loc. cit., 40 (*Atherina humboldtiana* Cuvier and Valenciennes).

Heterognathus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 198 (*Atherina humboldtiana* Cuvier and Valenciennes).

Lethostole Jordan and Evermann, Fish. North and Mid. Amer., 1896, 792 (*Chirostoma estor* Jordan).

Eslopsarum Jordan, Rept. U. S. Fish Com., XIX, 1895, 330 (*Chirostoma jordani* Woolman).

Subgenus ESLOPSARUM Jordan.**1956. *Chirostoma jordani* Woolman.**

Basin of Rio Lerma and Valley of Mexico.

Chirostoma jordani Woolman, Bull. U. S. Fish Com., XIV, 1894, 62, pl. 2, canals at Salamanca and City of Mexico.

Atherinichthys brevis Therese von Baiern, Anz. Kais. Akad. Wiss. Wien, 1894, 149, Lake Cuitzeo, Mexico.

1957. *Chirostoma mezquital* Meek.

Durango.

Chirostoma mezquital Meek, Field Col. Mus., pub. 93, V, 1904, 170, Durango, Mexico.

1958. *Chirostoma labarcæ* Meek.

Rio Lerma, Mexico.

Chirostoma labarcæ Meek, Field Col. Mus., Zool., III, 1902, 113, Rio Lerma, Mexico.

1959. *Chirostoma arge* (Jordan and Snyder).

Rio Verde, Mexico.

Eslopsarum arge Jordan and Snyder, Bull. U. S. Fish Com., XIV, 1899, 133, fig. 12, Rio Verde, Mexico.

Subgenus CHIROSTOMA Swainson.**1960. *Chirostoma bartoni* Jordan and Evermann.**

Tributary of the Rio Lerma, near Guanajuato, Mexico; Lake Patzcuaro.

Chirostoma bartoni Jordan and Evermann, Fish. North and Mid. Amer., 1896, 793, tributary of the Rio Lerma, near Guanajuato, Mexico.

Chirostoma attenuatum Meek, Field Col. Mus., Zool., III, 1902, 112, Lake Patzcuaro, Mexico.

1961. *Chirostoma zirahuen* Meek.

Lago de Zirahuen, Mexico.

Chirostoma zirahuen Meek, Field Col. Mus., Zool., III, 1902, 114, Lago de Zirahuen, Mexico.

1962. *Chirostoma patzcuaro* Meek.

Lago de Patzcuaro, Mexico.

Chirostoma patzcuaro Meek, Field Col. Mus., Zool., III, 1902, 113, Lago de Patzcuaro, Mexico.

1963. *Chirostoma humboldtianum* (Cuvier and Valenciennes). *Pescado blanco de Chalco.*

Lakes near the City of Mexico; La Laguna, Jalisco, Mexico.

Atherina humboldtiana Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 355 (479), Mexico.

Atherina vomerina Cuvier and Valenciennes, loc. cit., 357 (481), lake near City of Mexico.

1964. *Chirostoma regani* Jordan and Hubbs.

Valley of Mexico; Lake Patzcuaro.

Chirostoma regani Jordan and Hubbs, Leland Stanford Univ. Pub., Univ. Ser., 1919, 74, Xocho milco, Morelos, Mexico. After *Chirostoma breve* Regan; not of Steindachner.

Subgenus LETHOSTOLE Jordan and Evermann.

1965. *Chirostoma chapalæ* Jordan and Snyder.
Laguna de Chapala, Mexico.
Chirostoma chapalæ Jordan and Snyder, Bull., U. S. Fish Com., XIX, 1899, 135, fig. 13, Laguna de Chapala, Mexico, at Ocotlan.
1966. *Chirostoma consocium* Jordan and Hubbs.
Basin of Rio Lerma, Mexico.
Chirostoma consocium Jordan and Hubbs, Rev. Silversides, in Leland Stanford Univ. Pub. Univ. Ser., 1919, 76, Lake Chapala at La Palma, Mexico.
1967. *Chirostoma grandocule* (Therese von Baiern).
Lake Patzeuaro, Mexico.
Atherinichthys grandoculis Therese von Baiern, Anz. Kais. Akad. Wiss. Wien, 1894, Lake Patzeuaro, Mexico.
1968. *Chirostoma promelas* Jordan and Snyder.
Laguna de Chapala; Guadalajara, Mexico.
Chirostoma promelas Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 136, market of Guadalajara, Mexico, from Laguna de Chapala.
1969. *Chirostoma lucius* Boulenger.
Lake Chapala, Mexico.
Chirostoma lucius Boulenger, Ann. and Mag. Nat. Hist., ser. 7, V, January, 1900, 54, Lake Chapala, Mexico.
Chirostoma crystallinum Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1900), 139, fig. 16, Laguna de Chapala, Mexico, at Ocotlan.
1970. *Chirostoma diazi* Jordan and Snyder.
Lake Chapala, Mexico.
Chirostoma diazi Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1900), 137, fig. 15, Lake Chapala, Mexico.
1971. *Chirostoma sphyraena* Boulenger.
Lake Chapala, Mexico.
Chirostoma sphyraena Boulenger, Ann. Mag. Nat. Hist., ser. 7, V, 1900, 54, Lake Chapala, Mexico.
Chirostoma lermæ Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1900), 142, fig. 19.
1972. *Chirostoma ocotlane* Jordan and Snyder.
Lago de Chapala, Mexico.
Chirostoma ocotlane Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899 (1900), 140, Lago de Chapala, Mexico.
1973. *Chirostoma estor* Jordan. *Pescado blanco de Chapala*.
Lake Chapala, Lake Patzeuaro, Lake Zirahuén, and Lake Xochimilco, Mexico.
Chirostoma estor Jordan, Proc. U. S. Nat. Mus., II, 1879, 298, Lake Chapala (an error for Lake Patzeuaro).
Atherinichthys albus Therese von Baiern, Anz. Kais. Akad. Wiss. Wien, 1894, 148, Lake Patzeuaro, Mexico.
- Genus 660. **LABIDESTHES** Cope.
Labidesthes Cope, Proc. Amer. Phil. Soc., XI, 1870, 455 (*Chirostoma sicculum* Cope).
1974. *Labidesthes sicculum* (Cope). *Brook silverside; Skipjack; Glassfish*.
Lake Ontario and southern Michigan to Iowa, Florida, and Texas, clear streams and lakes.
Chirostoma sicculum Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 81, Grosse Isle, Detroit River, Mich.
- Genus 661. **LEURESTHES** Jordan and Gilbert. *Grunion*.
Leuresthes Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 29 (*Atherinopsis tenuis* Ayres).
1975. *Leuresthes tenuis* (Ayres). *Grunion*.
Sandy coasts of California from San Francisco to Lower California; abundant southward.
Atherinopsis tenuis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 75, San Francisco.
Leuresthes crameri Jordan and Evermann, Fishes North and Mid. Amer., 1896, 802, Ballenas Bay, Lower California.

- Genus 662. **MUGILOPS** Meek and Hildebrand.
Mugilops Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 271 (*M. cyanellus* Meek and Hildebrand).
1976. ***Mugilops cyanella*** Meek and Hildebrand.
 Panama Bay.
Mugilops cyanellus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 271, Pl. XXII, fig. 1, Balboa, Panama Bay.
1977. ***Mugilops marina*** Meek and Hildebrand.
 Panama Bay.
Mugilops marinus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1923, 272, Pl. XXII, fig. 2, Porto Bello, Panama Bay.
- Genus 663. **COLPICHTHYS** Hubbs.
Colpichthys Hubbs, Proc. Acad. Nat. Sci. Phila., LXVIX, 1917 (1918), 67 (*Atherinops regis* Jenkins and Evermann).
1978. ***Colpichthys regis*** (Jenkins and Evermann). *Pez del rey*.
 Gulf of California.
Atherinops regis Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 138, Bay of Guaymas, Sonora, Mexico.
- Genus 664. **ATHERINOPS** Steindachner. *Pascadillos del rey*.
Atherinops Steindachner, Ichth. Beitr., III, 1875, 61 (*Atherinopsis affinis* Ayres).
1979. ***Atherinops affinis*** (Ayres). *Little smelt; Pescadillo del rey*.
 Coast of California, and north to Oregon.
Atherinopsis affinis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 73, San Francisco.
Atherinops oregona Jordan and Snyder, Proc. U. S. Nat. Mus., XLV, 1913, 575, pl. 46, Yachats River, Oreg.
1980. ***Atherinops insularum*** Gilbert.
 San Clemente and San Nicolas Islands of the Santa Barbara Group; Guadalupe Island.
Atherinops insularum Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 549, San Clemente, San Nicolas, and Guadalupe Islands.
1981. ***Atherinops insularum cedrosensis*** Hubbs.
 Shores of Cedros and San Benito Islands, Lower California.
Atherinops insularum cedrosensis Hubbs, Bull. Amer. Mus. Nat. Hist., XXXVIII, 1918, 434, southeast side of Cedros Island, Lower California.
1982. ***Atherinops insularum guadalupæ*** Hubbs.
 Guadalupe Island, off Lower California.
Atherinops insularum guadalupæ Hubbs, Bull. Amer. Mus. Nat. Hist., XXXVIII, 1918, 435, Guadalupe Island.
- Genus 665. **ATHERINOPSIS** Girard. *Pescado del rey*.
Atherinopsis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 134 (*A. californiensis* Girard).
1983. ***Atherinopsis californiensis*** Girard. *California blue smelt; Pescado del rey; Peixe rey; Pesce rey*.
 Coast of California, from Cape Mendocino to Ballenas Bay, Lower California; abundant.
Atherinopsis californiensis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 134, San Francisco, Calif.
1984. ***Atherinopsis sonoræ*** Osburn and Nichols.
 Cedros Island, Lower California.
Atherinopsis sonoræ Osborn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 156, fig. 8, Cedros Island, Lower California.

Family 156. MUGILIDÆ. Mulletts

- Genus 666. **MUGIL** Linnæus. *Striped mullets* (soft dorsal and anal not scaled).
Mugil Artedi, in Linnæus, Syst. Nat., Ed. X, 1758, 316 (*M. cephalus* Linnæus).
Arnion Gistel, Thierreich, 1848, X (*M. cephalus* L.).

1985. *Mugil brasiliensis* Agassiz. *Liza*; *Lebranco*; *Queriman*; *Blueback mullet*; *Fantail mullet*.
Cuba to Patagonia; West Indies; Brazil; Habana, probably north to Virginia.
Mugil brasiliensis Agassiz, in Spix, Pisc. Brasil., 134 (234 by mispaging), 1829, pl. 72, Atlantic Ocean off Brazil.
Mugil liza Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 61 (83), Brazil; Porto Rico; Maracaibo; Surinam; Martinique.
Mugil lebranchius Poey, Memorias, II, 1861, 260, plate 18, fig. 3 Cuba.
Querimana gyraus Jordan and Gilbert, Proc., U. S. Nat. Mus., VII, 1884, 26, Key West; "the whirligig mullet" a little fish, with two anal spines, now regarded as the young of *Mugil*, but if so of *M. brasiliensis* as the scales are 28 to 29 (41 in *Mugil cephalus*). It is recorded from Woods Hole and Fortress Monroe; in revolving schools, perhaps mixed with the young of *M. cephalus*.
1986. *Mugil cephalus* Linnaeus. *Common mullet*; *Striped mullet*; *Céfalo*; *Macho*; *Machuto*; *Lisa cabezada*; *Callifaver mullet*.
Cosmopolitan; coasts of southern Europe and northern Africa; Atlantic coast of America from Cape Cod to Brazil; Pacific coast of America from Monterey to Chile; Hawaii; Japan; entering rivers. Perhaps more than one species included, but we fail to detect differences. If different, the American species must be known as *Mugil albula* of the Atlantic and *Mugil mexicanus* of the Pacific.
Mugil cephalus Linnaeus, Syst. Nat., Ed. X, 1758, 316, Europe; based on Artedi.
Mugil albula Linnaeus, Syst. Nat., Ed. XII, 1766, 520, Charleston, S. C.
? *Mugil tang* Bloch, Ichthyologia, 1794, 171, Africa.
? *Mugil plumieri* Bloch, loc. cit., 173, St. Vincent; on a drawing by Plumier.
Mugil lineatus Mitchell, in Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 71 (96), New York.
Mugil rammelsbergii Tschudi, Fauna Peruana, Ichth., 1845, 20, Peru.
Mugil berlandieri Girard, U. S. and Mex. Bound. Surv., 1859, 20, pl. 10, figs. 1 to 4, St. Josephs Island, Indianola, Brazos Santiago; Brazos; Galveston; all on coast of Texas.
Mugil quentherii Gill, Proc. Acad. Nat. Sci. Phila., XXI, 1863, 169, western coast of Central America; not of Steindachner.
Mugil mexicanus Steindachner, Ichth. Beitr., III, 1875, 58, Acapulco, Mexico.
- Genus 667. *QUERIMANA* Jordan and Gilbert. *White mullets*. (Soft dorsal and anal closely scaled.)
Querimana Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 588 (*Myxus harengus* Günther, now regarded as the young of *Mugil curema*).
1987. *Querimana curema* (Cuvier and Valenciennes). *White mullet*; *Blueback mullet*; *Lisa*; *Lisa blanca*.
Both coasts of America, Cape Cod to Brazil and Mazatlan to Chile.
Mugil curema Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 64 (87), Brazil; Martinique; Cuba.
Mugil petrosus Cuvier and Valenciennes, loc. cit., 65 (89), Brazil; Surinam; Gulf of Mexico; Cuba.
Myxus harengus Günther, Cat., III, 1861, 467, Pacific coast of Central America; young examples with two anal spines.
1988. *Querimana incilis* (Hancock). *Trench mullet*.
Waters of Central America; Rio Chagres to Pará and Bahia.
Mugil incilis Hancock, Quart. Jour. Sci., 1830, 127, Guiana.
Mugil guntheri Steindachner, Ichth. Notizen, I, 1864, 12, British Guiana.
1989. *Querimana thoburni* (Jordan and Starks).
Pacific coast of tropical America, from Guatemala to Galapagos Islands.
Mugil thoburni Jordan and Starks, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 812, Galapagos Islands,

1990. *Querimana hospes* (Jordan and Culver). *Lisita*.
West coast of Mexico to Panama Bay.
Mugil hospes Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 422, pl. 31, Mazatlan, Mexico.
1991. *Querimana gaimardiana* (Desmarest). *Redeye mullet*; *Liza ojo de Perdiz*.
Florida Keys to Cuba; Key West.
Mugil gaimardianus Desmarest, Diet. Class., 1831, pl. 109, Cuba.
1992. *Querimana setosus* (Gilbert).
Clarion Island of the Revillagigedo Group.
Mugil setosus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 549, Clarion Island.
1993. *Querimana trichodon* (Poey). *Fantail mullet*.
Florida Keys to Brazil; Key West.
Mugil trichodon Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1875, 66, pl. 8, figs. 4-8, Cuba.
- Genus 668. *CHÆNOMUGIL* Gill.
Chænomugil Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 169 (*Mugil proboscideus* Günther).
1994. *Chænomugil proboscideus* (Günther).
Pacific coast of tropical America; Mazatlan; Cordova; Panama.
Mugil proboscideus Günther, Cat., III, 1861, 459, Island of Cordova (Cardon), west coast of Central America.
- Genus 669. *DAJAUS* Cuvier and Valenciennes. *Mountain mullets*.
Agonostomus Bennet, Proc. Zool. Soc. Lond., I, 1830, 105 (*A. telfairii* Bennett).
Dajaus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 122 (164) (*Mugil monticola* Bancroft).
Neomugil Vaillant, Bull. Soc. Philom., Paris, 1894, 73 (*N. digueti* Vaillant).
1995. *Dajaus monticola* (Bancroft). *Trucha*; *Mountain mullet*.
Fresh waters of the West Indies and the Atlantic and Pacific streams of Mexico and Central America.
Mugil monticola Bancroft, in Griffith's ed. Cuvier's Animal Kingdom, Fishes, 1836, 367, pl. 36, Jamaica.
Mugil irretitus Gosse, Nat. Sojourn Jamaica, 1851, 84, Jamaica.
Agonostoma nasutum Günther, Cat., III, 1861, 463, Rio Geronimo, Guatemala.
Neomugil digueti Vaillant, Bull. Soc. Philom., IV, 1894, 73, Lower California.
Agonostomus salvini Regan, Ann. Mag. Nat. Hist., ser. XIX, 1907, 7, and Biol. Cent. Amer., Pisces., 1907, 68, Pl. XI, fig. 2, Nacasil, Guatemala.
1996. *Dajaus percoides* (Günther).
San Domingo.
Agonostoma percoides Günther, Cat., III, 1861, 464, San Domingo; perhaps not distinct from *Dajaus monticola*.
1997. *Dajaus microps* (Günther).
West Indies and Central America.
Agonostoma microps Günther, Cat., III, 1861, 462; probably West Indies.
- Genus 670. *JOTURUS* Poey.
Joturus Poey, Memorias, II, 1861, 263 (*J. pichardi* Poey).
Xenorhynchichthys Regan, Ann. Mag. Nat. Hist., II, 1908, 461 (*Joturus stipes* Jordan and Gilbert).
1998. *Joturus pichardi* Poey. *Joturo*.
Rivers of Cuba; at the foot of waterfalls.
Joturus pichardi Poey, Memorias, II, 1861, 263, Rio Almendares, near Habana.

1999. *Joturus globiceps* (Günther). *Bobo*.

Rivers and cataracts of eastern Mexico, from Jalapa to Costa Rica and Panama.

Agonostoma globiceps Günther, Ann. Mag. Nat. Hist., ser. 4, XIV, 1874, 370, Myzantla, Vera Cruz.

Joturus stipes Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 373, Rio Bayano, near Panama.

Family 157. SPHYRÆNIDÆ. Barracudas**Genus 671. SPHYRÆNA Röse.**

Sphyræna Röse, in Artedi Piscium, 1793, 52 (*Esox sphyræna* Linnæus).

Sphyræna Artedi, in Bloch and Schneider, Syst. Ichth., 1801, 109 (*Esox sphyræna* Linnæus).

Agriosphyræna Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 749 (*Esox barracuda* Walbaum).

Subgenus SPHYRÆNA Röse.**2000. *Sphyræna sphyræna* (Linnæus). *European barracuda*; *Spet*; *Sennet*.**

Coasts of southern Europe and neighboring islands, west to the Bermudas.

Esox sphyræna Linnæus, Syst. Nat., Ed. X, 1758, 313, Mediterranean Sea.

Esox spet Haüy, Encycl. Metod. Poiss., 1787; after Linnæus.

Sphyræna vulgaris Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 242 (327), Mediterranean.

Sphyræna viridensis Cuvier and Valenciennes, loc. cit., 251 (339), St. Jago, Cape Verde Islands.

2001. *Sphyræna argentea* Girard. *California barracuda*; *Barracouta*.

Pacific coast, from San Francisco southward to Cape San Lucas.

Sphyræna argentea Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 144 San Diego, Calif.

Sphyræna lucasana Gill, loc. cit., XV, 1863, 86, Cape San Lucas.

2002. *Sphyræna ensis* Jordan and Gilbert. *Vicuda*.

Gulf of California to Panama.

Sphyræna ensis Jordan and Gilbert, Bull. U. S. Fish Com., II, 1882, 106, Mazatlan, Mexico.

2003. *Sphyræna borealis* DeKay. *Northern barracuda*; *Sennet*.

Atlantic coast of the United States, from Cape Cod to North Carolina.

Sphyræna borealis DeKay, N. Y. Fauna: Fishes, 1842, 39, pl. 60, New York.

2004. *Sphyræna guachancho* Cuvier and Valenciennes. *Guaguanche pelón*; *Guanuanche*.

West Indies north to Pensacola; Gulf Stream to Woods Hole.

Sphyræna guachancho Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 252 (342), Habana.

Sphyræna güntheri Haly, Ann. Mag. Nat. Hist., XV, 1875, 270, Colon.

2005. *Sphyræna picudilla* Poey. *Picudilla*; *Baracuda*.

West Indies, on the coasts of Cuba; Bahia.

Sphyræna picudilla Poey, Memorias, II, 1861, 162; Habana.

Subgenus AGRIOSPHYRÆNA Fowler.**2006. *Sphyræna barracuda* (Walbaum). *Great barracuda*; *Picuda*; *Becuna*; *Short barracuda*.**

West Indies and Brazil, north to Pensacola, Charleston, and the Bermudas; accidental to Woods Hole, Mass.

Umbra minor, etc. (the barracuda) Catesby, Fishes of Carolina, etc., II, 1743, 1, pl. 1, Bahamas.

Esox barracuda Walbaum, Artedi Piscium, III, 1792, 94; after Catesby.

Sphyræna sphyræna var. *picuda* Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 110, Habana; after Parra.

Sphyræna becuna Lacépède, Hist. Nat. Poiss., V, 1803, pl. 9, fig. 3; after drawing by Plumier at Martinique.

Suborder RHEGNOPTERI

Family 158. POLYNEMIDÆ. Threadfins

Genus 672. POLYNEMUS Linnæus. *Barbudos*.

Polynemus (Gronow) Linnæus, Syst. Nat., Ed. X, 1758, 317, (*P. quinquarius*, *virginicus*, and *paradiscus* Linnæus); properly restricted by Günther and by general usage to *Polynemus paradiscus* Linnæus.

Polydactylus Lacépède, Hist. Nat. Poiss., V, 1803, 419 (*P. plumieri* Lacépède = *Polynemus virginicus* Linnæus).

Trichidion Klein, in Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 274 (*Polynemus virginicus* Linnæus).

2007. *Polynemus approximans* Lay and Bennett. *Raton*.

Pacific coast of tropical America; Guaymas to Panama; Santa Catalina and San Diego.

Polynemus approximans Lay and Bennett, Beechey's Voyage, Zool., Fish., 1839, 57, Mazatlan, Mexico.

Polynemus californiensis Thominot, Bull. de la Soc. Philom. de Paris, Séance, 27 Juin, 1886, (7), X, 161, California.

2008. *Polynemus virginicus* Linnæus. *Barbudo*; *Barbu*; *Catfish*.

West Indies, north to the Florida Keys.

Polynemus virginicus Linnæus, Syst. Nat., Ed. X, 1758, 317, America.

Polydactylus plumieri Lacépède, Hist. Nat. Poiss., V, 1803, 419, Martinique; from a drawing by Plumier.

Polynemus mango Lacépède, loc. cit., 413, America, after Linnæus.

Polynemus americanus Cuvier and Valenciennes, loc. cit., III, 1829, 291 (393), Cayenne, San Domingo, Martinique.

Polynemus oligodon Günther, Cat., II, 1860, 322, Rio Janeiro.

2009. *Polydactylus opercularis* (Gill).

Pacific coast of tropical America, from Cape San Lucas to Panama.

Trichidion opercularis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 168, Cape San Lucas.

Polynemus melanopoma Günther, Trans. Zool. Soc. Lond., VI, 1868, 421, San José de Guatemala.

2010. *Polynemus octonemus* Girard. *Threadfin*; *Eight-threaded threadfish*.

New York to the Rio Grande.

Polynemus octonemus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 167, Brazos Santiago; Galveston.

Trichidion octofilis Gill, loc. cit., XIII, 1861, 280, New York.

Genus 673. PENTANEMUS Günther.

Pentanemus Günther, Cat., II, 1860, 331 (*Polynemus quinquarius* Linnæus).

2011. *Pentanemus quinquarius* (Linnæus).

Atlantic Ocean; West Indies to coast of Africa; rare.

Polynemus quinquarius Linnæus, Syst. Nat., Ed. X, 1758, 317, America; after Gronow.

Polynemus artedii Bennett, Proc. Zool. Soc. Lond., 1831, 146, Africa.

Polynemus macronemus Pel, Bydrage tot de Dierk., 1851, 9, Africa.

Series SCOMBRIFORMES

Family 159. ACANTHOCYBIIDÆ

Genus 674. ACANTHOCYBIUM Gill. *Petos*.

Acanthocybium Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 125 (*Cybium sara* Bennett).

2012. *Acanthocybium petus* (Poey). *Peto*.

West Indies north to Key West; recorded from Italy.

Cybium petus Poey, Memorias, II, 1861, 234, pl. 16, fig. 1, Habana.

Cybium verany Döderlein, Giorn. di Sci. Nat., ed. Econ., VIII, 1872, Palermo.

2013. *Acanthocybium solandri* (Cuvier and Valenciennes). *Ono*; *Peto*.

Warmer parts of the Pacific; Hawaii; Pacific coast of Mexico; and South Seas.

Cybium solandri Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 192, open seas; exact locality unknown; after Solander.

Family 160. CYBIIDÆ ⁴⁴

Genus 675. SIERRA Fowler.

Sierra Fowler, Proc. Acad. Nat. Sci. Phila., LVI, 1904 (1905), 766
(*Cybiium cavalla* Cuvier).

2014. *Sierra cavalla* (Cuvier). *Sierra*; *Kingfish*; *Cavalla*.

Tropical Atlantic; Florida Keys and Charleston; Cape Cod; Africa;
Brazil.

Cybiium cavalla Cuvier, Règne Animal, ed. 2, II, 1829, 200; after *Guarapuca* of Marcgrave.

Cybiium immaculatum Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 140 (191), no locality.

Cybiium caballa Cuvier and Valenciennes, loc. cit., 187, Brazil.

Genus 676. SCOMBEROMORUS Lacépède.

Scomberomorus Lacépède, Hist. Nat. Poiss., III, 1802, 292 (*S. plumieri* Lacépède=*Scomber regalis* Bloch).

Polipturus Rafinesque, Anal. de la Nat., 1815, 89; substitute for *Scomberomorus*.

Chromitra Lockington, Proc. Acad. Nat. Sci. Phila., XXXI, 1879, 133
(*C. concolor* Lockington).

2015. *Scomberomorus maculatus* (Mitchill). *Spanish mackerel*; *Spaniard*; *Spotted cybium*; *Bay mackerel*; *Spotted mackerel*.

East coast of America from Cape Ann to Brazil; common in Gulf of Mexico but not recorded from Cuba.

Scomber maculatus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 426, New York; not of Couch.

2016. *Scomberomorus sierra* Jordan and Starks. *Sierra*.

Pacific coast of tropical America.

Scomberomorus sierra Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 428, Mazatlan, Mexico.

2017. *Scomberomorus regalis* (Bloch). *Sierra*; *Pintado*; *Cero*; *Sier*; *Siering*; *Searer*; *Spotted cero*; *Kingfish*; *Black-spotted Spanish mackerel*.

Cape Cod to Brazil; Cuba.

Scomber regalis Bloch, Naturgesch. ausl. Fische, VII, 1793, 38, Martinique; after a drawing by Plumier.

Scomberomorus plumieri Lacépède, Hist. Nat. Poiss., III, 1802, 292, Martinique.

Cybiium acervum Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 136 (186), Martinique; Cuba; St. Domingo.

2018. *Scomberomorus concolor* (Lockington). *Monterey Spanish mackerel*. Coast of California.

Chromitra concolor Lockington, Proc. Acad. Nat. Sci. Phila., XXXI, 1879, 133, Monterey, Calif.

Family 161. SCOMBRIDÆ

Genus 677. SCOMBER Linnæus.

Scomber Artedi, in Linnæus, Syst. Nat., ed. X, 1758, 297 (*S. scombrus* Linnæus).

Cordylus Gronow, Cat. Fish., 1854, 163 (*Scomber scombrus* L.).

2019. *Scomber scombrus* Linnæus. *Common mackerel*; *Boston mackerel*; *Wawwhunnekesuog*; *Caballa*.

North Atlantic; Norway and Labrador, south to Spain and Cape Hatteras.

Scomber scombrus Linnæus, Syst. Nat., Ed. X, 1758, 297, Atlantic.

Scomber vernalis Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 423, Sandy Hook, N. J.

Genus 678. PNEUMATOPHORUS Jordan and Gilbert.

Pneumatophorus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 593 (*Scomber pneumatophorus* De la Roche=*Scomber colias* Gmelin).

⁴⁴ The family name *Cybiidæ* may be applied to the allies of *Scomberomorus* and *Cybiium*. The name may be preferred to one derived from *Scomberomorus*, as the genus *Cybiium* is also valid. *Cybiium comersoni*, the Asiatic type of *Cybiium* Cuvier, has but two gillrakers, while in *Scomberomorus* there are 8 to 11 below the angle. *Acanthopneustes* (giant fishes with the reticulated gills of a swordfish) should constitute a separate family. The earliest of the many fossils of this type are mainly allies of *Scomberomorus*.

2020. *Pneumatophorus grex* (Mitchill). *Chub mackerel*; *Tinker mackerel*; *Easter mackerel*; *Thimble-eyed mackerel*; *Spanish mackerel of England*. The small mackerel called by the above names is very abundant on our Atlantic coast. It is very close to the similar species of Europe, *Scomber colias* Gmelin.
 ?*Scomber colias* Gmelin, Syst. Nat., 1788, 1329, Sardinia; after Cetti.
 ?*Scomber lacertus* Walbaum, Artdi Pisc., 1792, 209, Sardinia; after Cetti.
 ?*Scomber pneumatophorus* De la Roche, Ann. Mus. Nat. Hist., XIII, 1809, 315, Balearic Islands.
 ?*Scomber macrophthalmus* Rafinesque, Indice, 1810, 20 and 53, Palermo.
Scomber grex Mitchell, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 422, New York.
 ?*Scomber maculatus* Couch, Mag. Nat. Hist., V, 1832, 22, England.
 ?*Scomber undulatus* Swainson, Nat. Hist. Fishes, Amphib., etc., II, 1839, 409, Sicily.
 ?*Scomber gracilis* Swainson, loc. cit., 410, Sicily.
Scomber dekayi Storer, Fishes Mass., 1867, 130, Massachusetts.
2021. *Pneumatophorus diego* (Ayres).
 Coast of California; very abundant southward. Perhaps not separable from the Japanese species, *Scomber japonicus*; some small differences apparently permanent.
 ?*Scomber japonicus* Houttuyn, Verhand. Holl. Maatsch. Haarl., XX, 1782, 331, Japan.
 ?*Scomber auratus* Houttuyn, loc. cit., 333, Japan.
Scomber diego Ayres, Proc., Calif. Acad. Nat. Sci., I, 1856, 101, Santa Barbara, Calif.
2022. *Pneumatophorus australasicus* (Cuvier and Valenciennes).
 North coast of Australia, from Moreton Bay, Queensland to Lord Howe Island, Hawaii and Socorro Island off the west coast of Mexico.
Scomber australasicus Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 49, Australia.

Family 162. KATSUWONIDÆ. The victor fishes

Genus 679. *KATSUWONUS* Kishinouye. *Oceanic bonito*.
Katsuwonus Kishinouye, Scombroid Fish. Japan, Coll. Agric. Tokyo, VIII, 1923, 452 (*Scomber pelamis* L.).

2023. *Katsuwonus pelamis* (Linnæus). *Oceanic bonito*.
 Open Atlantic; rarely north to Cape Cod and Bermudas on the Atlantic coast.
Scomber pelamis Linnæus, Syst. Nat., ed. X, 1758, 297, "in Pelago inter Tropicos."
Scomber pelamides Lacépède, Hist. Nat. Poiss., III, 1802, 14; after Linnæus.
2024. *Katsuwonus vagans* (Lesson). *Aku*; *Pacific bonito*.
 Pacific Ocean, Hawaii, southern California, and Japan; inordinately abundant in open sea.
Thynnus vagans Lesson, Voy. Coquille, Zool., II, 1828, 162, pl. 32.
Thynnus affinis Cantor, Cat. Malay Fishes, 1849, 106.

Genus 680. EUTHYNNUS Lütken.

Euthynnus Lütken, Jordan and Evermann, Fishes North and Mid. Amer., 1896, 868 (*Thynnus thunnina* Cuvier and Valenciennes = *Scomber alletteratus* Rafinesque).

This genus proves to be quite distinct from *Gymnosarda*, with which it has been confused. *Gymnosarda* is an Asiatic ally of *Sarda*.

2025. *Euthynnus alletteratus* (Rafinesque). *Little tunny*; *Bonito*.
 Warm seas; north in Gulf Stream to Cape Cod; rather common at New York in summer: West Indies; Mediterranean; Japan.
Scomber alletteratus Rafinesque, Caratteri, 1810, 46, Palermo.
Thynnus leachianus Risso, Eur. Mérid., III, 1826, 414, Nice.
Scomber quadripunctatus Geoffroy St. Hilaire, Deser. Egypt. Poiss., 1827, pl. 24, fig. 3, Egypt.
Thynnus thunnina Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 76, (104), pl. 212, Mediterranean.
Thynnus brasiliensis Cuvier and Valenciennes, loc. cit., 80 (110), Brazil.
Thynnus brevipinnis Cuvier and Valenciennes, loc. cit., 81 (112), Mediterranean.

2026. *Euthynnus yaito* Kishinouye. *Kawakawa; Yaito*.
Japan; Hawaii; Pacific coast of Mexico.
Euthynnus yaito Kishinouye, Scombroïd Fishes, 1923, 420, Japan.
2027. *Euthynnus lineatus* Kishinouye.
Pacific coast of Mexico.
Euthynnus lineatus Kishinouye, Sici. Gakko, No. 111, 1920, 113; and
in Scombroïd Fishes, 1923, 430, fig. 2, Manzanillo, Mexico.
- Genus 681. *AUXIS* Cuvier. *Frigate mackerels*.
Auxis Cuvier, Règne Anim., ed. 2, II, 1829, 199 (*Scomber rochei* Risso =
Scomber thazard Lacépède).
2028. *Auxis rochei* (Risso). *Frigate mackerel*.
Open Atlantic, at times northward to Cape Cod; perhaps not separable
from *A. thazard* (Lacépède) of the South Seas.
Scomber rochei Risso, Ichth. Nice, 1810, 165, Nice.
Scomber bisus Rafinesque, Caratteri, 1810, 45, Palermo.

Family 163. THUNNIDÆ. Tunnies and albacores

- Genus 682. *SARDA* Cuvier. *Bonitos*.
Sarda Cuvier, Règne Animal, ed. 2, II, 1829, 199 (*Scomber pelamys*
Brünnich; not of Linnæus = *Scomber sarda* Bloch).
Pelamys Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 149
(*Scomber sarda* L.); name preoccupied.
Palamita Bonaparte, Ittiologia Generale, 1831, 107, substitute for
Pelamys.
Creotroctes Gistel, Thierreich, X, 1848 (*Scomber sarda* L.); substitute
for *Pelamys*.
2029. *Sarda sarda* (Bloch). *Bonito; Bone jack; Bone-eater; Skipjack*.
Atlantic ocean, on both coasts, north to Cape Cod; very abundant.
Scomber sarda Bloch, Naturgesch. Ausl. Fische, VII, 1793, 44, Europe.
Scomber mediterraneus Bloch and Schneider, Syst. Ichth., 1801, 23,
Marseilles; after Brünnich.
Scomber pelamitus Rafinesque, Caratteri, 1810, 44, pl. 2, Palermo.
2030. *Sarda lineolata*⁴⁵ (Girard). *California bonito; Skipjack*.
California, Patagonia and Japan; if *S. orientalis* is not distinct.
? *Pelamys chilensis* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII,
1831, 118 (163), Valparaiso.
? *Pelamys orientalis* Temminck and Schlegel, Fauna Japon., Poiss., 1844,
99, pl. 52, Japan.
Pelamys lineolata Girard, Pac. R. R. Surv., X, 1858, 106, San Diego,
Calif.
2031. *Sarda velox* Meek and Hildebrand.
Panama.
Sarda velox Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV,
1923, 320, pl. 24, Panama market. Reported by Nichols and
Breder from Block Island, R. I.; probably an error.
- Genus 683. *THUNNUS* South. *Great tunnies*.
Thynnus Cuvier, Règne Anim., ed. 1, 1817, 313 (*Scomber thynnus* L.);
name preoccupied in Lepidoptera.
Thynnus South, Encyclop. Metrop., V, 1845, 620 (*Scomber thynnus*
Linnæus); substitute for *Thynnus*.
Albacora Jordan, Man. Vert., ed. V, 1888, 106 (*Scomber thynnus* L.).
Orycnus Cooper, Proc., Calif. Acad. Nat. Sci., III, 1863, 77 (*Scomber*
thynnus L.); not *Orycnus* Gill, 1861, the name originally a misprint
for *Orycnus*.
2032. *Thunnus saliens* Jordan and Evermann. *Leaping tuna*.
Eastern Pacific; lower California, north to mouth of Columbia River;
the type locality Santa Catalina Island.
Thunnus saliens Jordan and Evermann, Oce. Papers, Calif. Acad. Sci.,
XII, Sept. 30, 1926, 10, Santa Catalina Island, Calif.

⁴⁵ This species is well separated from *Sarda sarda* of the Atlantic. *Sarda orientalis* of Japan and Hawaii is nearly related, and both may be inseparable from *S. chilensis* of Chile, as has been assumed by Jordan and Evermann (1896).

2033. *Thunnus secundodorsalis* Storer.
North Atlantic; New York to Labrador.
Thunnus secundodorsalis Storer, Hist. Fish. Mass., 1875, 163, Pl. XXII,
fig. 1, Provincetown, Mass.
2034. *Thunnus subulatus* (Poey).
West Indies; Cuba.
Orcynus subulatus Poey, Enumeratio, 1875, 71, Cuba; perhaps same
as *T. coretta*.
2035. *Thunnus coretta* (Cuvier and Valenciennes). *Boñita of Martinique*.
West Indies.
Tynnus coretta Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831,
102, a young fish 11 inches long from Martinique.
- Genus 684. *GERMO* Jordan. *Long-finned albacores*.
Orcynus Cuvier, Règne Anim., Ed. I, 1817, 314 (*Scomber germo*
Lacépède = *Scomber alalunga* Gmelin; not *Orcynus* Rafinesque, 1810,
which is *Scomberoides*).
Germo Jordan, Proc. Acad. Nat. Sci. Phila., XL, 1888, 180 (*Scombrus*
alalunga Gmelin); substitute for *Orcynus*, preoccupied.
2036. *Germo alalunga* (Gmelin). *Albacore; Alilonghi*.
Mediterranean; Atlantic; all warm seas.
Scomber alalunga Gmelin, Syst. Nat., I, 1788, 1330, Sardinia; mis-
printed *Alatunga*.
Thynnus atlanticus Lesson, Voy. Coquille Zool., II, 1830, 165, Atlantic
ocean.
Thynnus balteatus Cuvier and Valenciennes, Hist. Nat. Poiss., VIII,
1831, 98 (136), coast of Brazil ("vis-à-vis la Trinité du Brazil, par les
20° de latitude Australe").
2037. *Germo germo* (Lacépède).
Pacific Ocean; California; Hawaii, Japan, and southward.
Scomber germo Lacépède, Hist. Nat. Poiss., II, 1800, 598, lat. 17° S.,
long. 103° W.
Thynnus pacificus Cuvier and Valenciennes, op. cit., VIII, 1831, 96
(133), lat. 26° S.; long. 103° W.
- Genus 685. *NEOTHUNNUS* Kishinouye. *Yellow-finned albacores*.
Neothunnus Kishinouye, Coll. Agric. Tokyo, VIII, 1923, 445 (*Thynnus*
macropterus Temminck and Schlegel).
2038. *Neothunnus catalinæ* Jordan and Evermann. *Yellow-finned albacore*.
Open Pacific; southern California, about Santa Catalina Island.
Neothunnus catalinæ Jordan and Evermann, Occ. Paper No. 12, Calif.
Acad. Sci., Sept. 30, 1926, 19, pl. 4, Santa Catalina Island, Calif.
2039. *Neothunnus albacores* (Bonnaterre). *West Indies long-finned albacore*.
West Indies.
Scomber albacores Bonnaterre, Encyc. Ichth., 1788, 140, Jamaica; based
on Sloane; not *albacora* Lowe.
Scomber sloani Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831,
107 (148), Jamaica; after Sloane.
2040. *Neothunnus allisoni* (Mowbray). *Allison's tuna*.
Coast of Florida.
Thunnus allisoni Mowbray, Copeia, No. 78, 1920, 9, with text fig.,
Biscayne Bay, east coast of Florida.
- Family 164. *GEMPYLIDÆ*. Snake mackerel; Escolares
- Genus 686. *ESCOLAR* Jordan and Evermann.
Escolar Jordan and Evermann, in Goode and Bean, Oceanic Ichth.,
1896, 519 (*Thysitops violaceus* Bean).
Bipinnula Jordan and Evermann, Fishes North and Mid. Amer., 1896,
878 (*Thysitops violaceus* Bean); duplication of names accidental
through noncorrection of proofs.
2041. *Escolar violaceus* (Bean).
Atlantic coast of America in deep water; LaHave Bank.
Thysitops violaceus Bean, Proc. U. S. Nat. Mus., X, 1887, 513, LaHave
Bank; perhaps the same as *Escolar niger*.

2042. *Escolar niger* (Poey).

Cuba.

Thyrstites niger Poey, Enumeratio, 1875, 74, deep water off Cuba.Genus 687. *RUVETTUS* Cocco. *Escolares*.*Ruvettus* Cocco, Giorn. Sci. Sicilia, XLII, 1829, 2 (*R. pretiosus* Cocco).
Aplurus Lowe, Trans. Zool. Soc. London, II, 1841, 180 (*A. simplex* Lowe).*Acanthoderma* Cantraine, Jour. Acad. Sci. Belles-Lettres Bruxelles, X, 1837 (*A. temminckii*).2043. *Ruvettus pretiosus*⁴⁶ Cocco. *Escolar*; *Rovetto*; *Ruvetto*; *Chicolar*; *Oilfish*; *Scourfish*; *Plaintail*.

Mediterranean and westward to Cuba in Atlantic.

Ruvettus pretiosus Cocco, in Giornale di Scienze per la Sicilia, XLII, 1829, 21, Messina.*Tetragonurus simplex* Lowe, Proc. Zool. Soc. Lond., 1833, 143, Madeira.*Ruvettus temminckii* Cantraine, Giorn. Sci. Ft. Litt. Pisa, 1833, Malta; *vide* Poey.*Thyrstites acanthoderma* Lowe, Proc. Zool. Soc. Lond., 1839, 78, Madeira.*Thyrstites scholaris* Poey, Memorias, I, 1854, 372, pl. 32, fig. 1, Cuba.Genus 688. *EPINNULA* Poey.*Epinnula* Poey, Memorias, I, 1854, 369 (*E. magistralis* Poey).2044. *Epinnula magistralis* Poey. *Dómine*.

Habana.

Epinnula magistralis Poey, Memorias, I, 1854, 369, Habana.Genus 689. *NEALOTUS* Johnson.*Nealotus* Johnson, Proc. Zool. Soc. Lond., 1865, 434 (*N. tripes* Johnson).2045. *Nealotus tripes* Johnson.

About Madeira in deep water; between the Bahamas and Bermudas.

Nealotus tripes Johnson, Proc. Zool. Soc. Lond., 1865, 434, Madeira.Genus 690. *PROMETHICHTHYS* Gill. *Conejos*.*Prometheus* Lowe, Trans. Zool. Soc. Lond., II, 1841, 181, Madeira (*Psempylus prometheus* Cuvier and Valenciennes); name preoccupied.*Promethichthys* Gill, Mem. Nat. Acad. Sci., VI, 1893, 115 and 123 (*Prometheus atlanticus* Lowe=*Gempylus prometheus* Cuvier and Valenciennes).2046. *Promethichthys prometheus* (Cuvier and Valenciennes). *Rabbitfish*; *Coelho*; *Conejo*; *Bermuda catfish*.

Tropical Atlantic; Cuba; Bermuda.

Gempylus prometheus Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 156 (213), pl. 222, St. Helena.Genus 691. *PTAX*⁴⁷ Jordan and Evermann.*Ptax* Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 504 (*Dicrotus parvipinnis* Goode and Bean).2047. *Ptax parvipinnis* (Goode and Bean).

Western Atlantic in deep water.

Dicrotus parvipinnis Goode and Bean, Oceanic Ichth., 1895, 201, fig. 212, Gulf Stream at Albatross stations 2537, 2542, and 2601, at about 40° N., 70° W.Genus 692. *GEMPYLUS* Cuvier and Valenciennes. *Snake mackerels*.*Gempylus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 152 (207) (*G. serpens* Cuvier and Valenciennes).*Lemnisoma* Lesson, Voyage Coquille, Poiss., 1826 (1831), 160, the date later than that of *Gempylus*, as the work of subsequent Cuvier and Valenciennes is quoted by Lesson (*Lemnisoma thyrsitoides* Lesson).*Zypothyca* Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 239 (*Gempylus coluber* Cuvier and Valenciennes).⁴⁶ A species very similar, regarded by Doctor Gudger as the same, is *Ruvettus pretiosus* Weber = *R. pacificus* Jordan and Jordan, from the tropical Pacific north to Hawaii.⁴⁷ From *παξ*, a rabbit, conejo, a Spanish name of *Promethichthys*. The genus is characterized by the number of fin rays—D. XXI, 11; A. II, 8—while in *Promethichthys* the rays are D. XVIII, 19-II; A. 16-II. *Dicrotus* has two lateral lines, the fin rays about as in *Promethichthys*.

2048. *Gempylus serpens* Cuvier and Valenciennes.

Deep seas of the Atlantic.

Gempylus serpens Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 152 (207), Martinique.

Gempylus ophidianus Poey, Memorias, II, 1861, 246, Cuba.

Family 165. TRICHIURIDÆ. Hairtails; Cutlassfishes

Genus 693. TRICHIURUS Linnæus. Hairtails.

Trichiurus Linnæus, Syst. Nat., Ed. X, 1758, 246 (*T. lepturus* Linnæus); after Artedi.

Gymnogaster Gronow, Mus. Ichth., I, 1754, 17, No. 47, and Zooph., I, 1763, 136 (*Trichiurus lepturus* Linnæus).

Enchelyopus Klein, in Bleeker, Versl. Akad. Amsterdam, XIV, 1862, 109 (*Trichiurus lepturus* Linnæus); after Klein; not of Schneider nor of Gronow.

Lepturus (Artedi) Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 126 (*Trichiurus lepturus* Linnæus, a revival of a pre-Linnæan name).

2049. *Trichiurus lepturus* Linnæus. Cutlassfish; Scabbardfish; Silverfish; Sable; Savola; Hairtail; Ribbonfish; Silvery hairtail.

Western Atlantic north to New Jersey; West Indies.

Trichiurus lepturus Linnæus, Syst. Nat., Ed. X, 1758, 246, America; after *Lepturus* of Artedi.

Trichiurus argenteus Shaw, Gen. Zool., IV, 1803, 90, pl. 12; after Linnæus.

2050. *Trichiurus nitens* Garman.

Off Galapagos Islands. This or a similar species in the Gulf of California.

Trichiurus nitens Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 69, off Galapagos Islands, Albatross stations 3354, 3389.

Genus 694. APHANOPUS Lowe.

Aphanopus Lowe, Proc. Zool. Soc. Lond., Pt. VI, 1839, 79 (*A. carbo* Lowe).

2051. *Aphanopus minor* Collett.

East coast of Greenland.

Aphanopus minor Collett, Vidensk. Selsk. Forhandl. Christiania, No. 19, 1886, 3, east coast of Greenland at 65° N., 31° W.

Genus 695. EVOXYMETOPON Poey. Tirantes.

Evoxymetopon Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 227 (*E. tæniatus* Poey).

2052. *Evoxymetopon tæniatus* Poey. Tirante; Tyrantfish.

Cuba.

Evoxymetopon tæniatus Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 228, Cuba.

Genus 696. LEPIDOPUS Gouan. Frostfishes.

Lepidopus Gouan, Hist. Nat. Poiss., 1770, 107 and 185 (*gouani*).

Vandellius Shaw, Gen. Zool., IV, 1803, 199 (needless substitute for *Lepidopus* Gouan).

Scarcina Rafinesque, Caratteri, 1810, 20 (*S. argyrea* Rafinesque).

Xiphotheca Montagu, Werner. Mus., I, 1812, 82 (*Lepidopus caudatus* Euphrasen).

2053. *Lepidopus xantusi* Goode and Bean. Scabbardfish.

Avalon, Santa Catalina; Lower California north to Santa Catalina, Calif.; San José del Cabo, Cape San Lucas.

Lepidopus xantusi Goode and Bean, Oceanic Ichth., 1895, 519, Cape San Lucas.

Genus 697. BENTHODESMUS Goode and Bean.

Benthodesmus Goode and Bean, Proc. U. S. Nat. Mus., IV, 1881, 380 (*B. elongatus* Goode and Bean, not *Lepidopus elongatus* Clarke = *Benthodesmus atlanticus* Goode and Bean).

2054. *Benthodesmus atlanticus* Goode and Bean.

Western edge of Grand Banks of Newfoundland in 80 fathoms.

Benthodesmus elongatus Goode and Bean, Proc. U. S. Nat. Mus., IV, 1881, 380-383; not of Clarke.

Benthodesmus atlanticus Goode and Bean, Oceanic Ichth., 1895, 205, Grand Banks.

Series XIPHIIFORMES

Family 166. ISTIOPHORIDÆ. Sailfishes; Spearfishes

Genus 698. ISTIOPHORUS Lacépède. *Sailfishes*.

Istiophorus Lacépède, Hist. Nat. Poiss., III, 1803, 374 (*I. gladifer* Lacépède=*Scomber gladius* Broussonet).

Notistium Hermann, Obs. Zool., 1804, 305 (*N. gladius* Hermann).

Zanclurus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 239 (*Histiophorus indicus* Cuvier and Valenciennes=*H. gladius*).

Histiophorus of authors, revised spelling.

2055. *Istiophorus americanus* (Cuvier and Valenciennes).

Brazil, and West Indies, north to Woods Hole.

Histiophorus americanus Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 303, Brazil; after Guebucu of Maregrave.

2056. *Istiophorus wrighti* Jordan and Evermann.

West Indies northward to Florida.

Istiophorus wrighti Jordan and Evermann, Occ. Paper No. 12, Calif. Acad. Sci., Sept. 30, 1926, 43, pl. 12, fig. 2, coast of Florida.

2057. *Istiophorus greyi* Jordan and Hill. *Mexican sailfish; Pacific volador*.

Pacific coast of Mexico, north to Cape San Lucas.

Istiophorus greyi Jordan and Hill, in Jordan and Evermann, Occ. Paper No. 12, Proc. Calif. Acad. Sci., Sept. 30, 1926, 41, pl. 14, near Cape San Lucas, Lower California.

2058. *Istiophorus volador* Jordan and Evermann. *Volador; Florida sailfish*.
About Florida Keys.

Istiophorus volador Jordan and Evermann, Occ. Paper No. 12, Calif. Acad. Sci., Sept. 30, 1926, 46, pl. 12, fig. 1, Long Key, Fla.

Istiophorus maguirei Jordan and Evermann, loc. cit., 45, pl. 13, West Indies; apparently young of *volador*.

Genus 699. MAKAIRA Lacépède. *Marlinspike fishes; Spearfishes*.

Makaira Lacépède, Hist. Nat. Poiss., IV, 1803, 688 (*M. nigricans* Lac.).

2059. *Makaira mazara* (Jordan and Snyder). *Black marlin; Kurokajiki* (*Black spearfish*); *Mazaara* (*real swordfish*); *Kuroka* (*black marlin*).

Pacific Ocean, from Japan to Hawaiian Islands and the Channel Islands, Calif.

Tetrapturus mazara Jordan and Snyder, Jour. Coll. Sci. Imp. Univ. Tokyo, XV, May 20, 1901, 4, 305, Misaki, Japan.

2060. *Makaira ampla* (Poey). *Aguja de Casta*.

West Indies.

Tetrapturus amplus Poey, Memorias, II, 1861, 243, Habana.

2061. *Makaira marlina* Jordan and Evermann. *Giant black marlin*.

Southern California, south to Cape San Lucas.

Makaira marlina Jordan and Evermann, Occ. Paper No. 12, Calif. Acad. Sci., Sept. 30, 1926, 59, pl. 17, off Cape San Lucas, Lower California.

2062. *Makaira mitsukurii* (Jordan and Snyder). *Marlinspike fish; Barred marlin; Makajiki or true spearfish of Japan*.

Coasts of Japan; Hawaii; southern California; abundant off Santa Catalina.

?*Tetrapturus indicus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 286, Sumatra, on a figure by Banks.

?*Histiophorus audax* Philippi.

Tetrapturus mitsukurii Jordan and Snyder, Jour., Coll. Sci. Imp. Univ. Tokyo, XV, pt. 2, 1901, 304, Pl. XVI, fig. 5, fishwell at Misaki.

2063. *Makaira holei* Jordan and Evermann. *Striped marlin*.

Off Pacific coast of Mexico, north to Cape San Lucas.

Makaira holei Jordan and Evermann, Occ. Papers No. 12, Calif. Acad. Sci., Sept. 30, 1926, 63, pl. 19, fig. 1, off Cape San Lucas, Lower California.

Family 167. XIPHIIDÆ. Swordfishes

Genus 700. XIPHIAS Linnæus. *Swordfishes*.

Xiphias Linnæus, Syst. Nat., Ed. X, 1758, 248 (*X. gladius* Linnæus).

Phæthonichthys Nichols, Amer. Mus. Nov., XIX, I, 1923 (*Phæthonichthys tuberculatus* Nichols; a young swordfish).

2064. *Xiphias gladius* Linnæus. *Common swordfish; Broadbill; Espada; Espadón emperador.*

Open sea, Atlantic and Pacific Oceans, on both coasts; Cuba to Cape Breton and Newfoundland Banks; Pacific off Santa Barbara Islands, Hawaii, Japan, San Diego.

Xiphias gladius Linnæus, Syst. Nat., Ed. X, 1758, 248, Europe.

Xiphias rondeletii Leach, in Wern. Mem., II, 1818, 58, pl. 2, fig. 1, Firth of Forth.

Xiphias imperator Schneider, ed. Bloch, Syst. Ichth., 1801, 93, Pl. XXI, Mediterranean, after an erroneous figure of Duhamal.

Phæthonichthys tuberculatus Nichols, Amer. Mus. Nat. Hist. Novitates, XIX, pl. 1, Oct. 19, 1923; very young of *X. gladius* L.

Series LUVARIFORMES

Family 168. LUVARIDÆ

Genus 701. LUVARUS Rafinesque.

Luvarus Rafinesque, Caratteri, 1810, 22 (*L. imperialis* Rafinesque).

Diana Risso, Europe Méridionale, 1826, 267 (*D. semilunata* Risso).

Ausonia Risso, op. cit., 341 (*A. cuvieri* Risso).

Proctostegus Nardo, Diaro, Chem. et Hist. Nat. Ticino, I, 1827, 18, 42 (*P. proctostegus* Nardo).

Astrodermus (Bonelli) Cuvier, Règne Anim., ed. 2, II, 1829, about 215 (*A. guttatus* Bonelli MS).

Scafaria Gistel, Thierreich, VIII, 1848 (*Ausonia cuvieri* Risso).

2065. *Luvarus imperialis* Rafinesque.

Open sea; once taken at San Pedro, Calif. (W. F. Thompson).

Luvarus imperialis Rafinesque, Caratteri, 1810, 22.

Diana semilunata Risso, Europe Mérid., 1826, 267.

Ansonia cuvieri Risso, loc. cit., 341.

Proctostegus proctostegus Nardo, Diaro, Chem. et Hist. Nat. Ticino, I, 1827, 18, 42.

Astrodermus guttatus Bonelli, in Cuvier, Règne Anim., ed. 2, II, 1829, 215 ca.

Scafaria Gistel, Thierreich, VIII, 1848.

Series CORYPHÆNIFORMES

Family 169. CORYPHÆNIDÆ. Dolphins; Dorados

Genus 702. CORYPHÆNA Linnæus. *Dorados*.

Coryphæna Linnæus, Syst. Nat., Ed. X, 1758, 261 (*C. hippurus* L.).

Lampugus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 317 (*Scomber pelagicus* L.; female).

2066. *Coryphæna hippurus* Linnæus. *Common dolphin; Dorado; Dourade.*

Pelagic to Cape Cod and northward, South Carolina to Texas; also throughout the mid-Pacific.

Coryphæna hippurus Linnæus, Syst. Nat., ed. X, 1758, 261, open seas.

Scomber pelagicus Linnæus, loc. cit., 299, no locality.

Coryphæna fasciolata Pallas, Spicil. Zool., VIII, 1770, 23, Amboina.

Coryphæna imperialis Rafinesque, Caratteri, 1810, 33, Sicily.

Coryphæna immaculata Agassiz in Spix, Pisc. Brasil., 1829, 111, pl. 56, Atlantic, off Brazil.

Coryphæna marcgravi Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 223 (301), America.

Coryphæna suerii Cuvier and Valenciennes, loc. cit., 224 (302), Philadelphia.

Coryphæna dorado Cuvier and Valenciennes, loc. cit., 225 (303), Brazil.

Coryphæna dolfyn Cuvier and Valenciennes, loc. cit., 226 (305), Antilles.

- Coryphæna virgata* Cuvier and Valenciennes, loc. cit., 228 (308), Martinique.
Coryphæna argyrurus Cuvier and Valenciennes, loc. cit., 232 (314), Sea of Coromandel.
Coryphæna vlamingii Cuvier and Valenciennes, loc. cit., 233 (315), seas of India.
Lampugus sculus Cuvier and Valenciennes, loc. cit., 240 (323), Sicily.
Coryphæna scomberoides Cuvier and Valenciennes, loc. cit., 234 (315), South Sea.
Ectenias brunneus Jordan and Thompson, Mem. Carnegie Mus., VI, 1914, 241, Japan; young.

- 2067. *Coryphæna equisetis* Linnæus. *Small dolphin*.**
 Open Atlantic and Pacific; rare in the West Indies. Recently taken in some numbers off coast of southern California.
Coryphæna equisetis Linnæus, Syst. Nat., Ed. X, 1758, 261 (misprinted *equiselis*), high seas; after Osbeck.
Coryphæna aurata Rafinesque, Caratteri, 1810, 33, Sicily.
Coryphæna lessonii Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 228 (307), India.
Lampugus punctulatus Cuvier and Valenciennes, loc. cit., 242 (429), Atlantic at the Equator.
Lampugus neapolitanus Cuvier and Valenciennes, loc. cit., 241 (325), Naples; after Bloch.
Coryphæna azorica Cuvier and Valenciennes, loc. cit., 227 (306), Azores.

Series BRAMIFORMES

Family 170. BRAMIDÆ. Sea breams

- Genus 703. BRAMA Bloch and Schneider. *Pomfret*.**
Brama Bloch and Schneider, Ed. Bloch, Syst. Ichth., 1801, 98 (*Sparus raii* Bloch).
Lepodus Rafinesque, Caratteri, 1810, 54 (*L. saragus* Rafinesque = *Sparus raii* Bloch).

- 2068. *Brama raii* (Bloch). *Sea bream; Pomfret; Cataquoile; Rondanin*.**
 Open seas; Europe; Faroe Islands; Bermuda; Grand Banks; Pacific coast from Santa Catalina to Puget Sound; Japan; reported recently from Cape Flattery.
Brama marina cauda forcipata Ray, Syn. Meth. Piscium, 1713, 115, Middelburg.
Sparus raii Bloch, Naturgesch. Ausl. Fische, V, 1791, 95; after Ray, etc.
Sparus castaneola Shaw, Gen. Zool., IV, 1803, 424; after Lacépède.
Sparus niger Turton, British Fauna, 1807, 98, Swansea.
Lepodus saragus Rafinesque, Caratteri, etc., 1810, 54, Palermo.
Brama dussumieri Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 219 (294), Indian Sea, long. 85° E.
 ?*Brama orcini* Cuvier and Valenciennes, loc. cit., 220 (295), Indian Sea, long. 85° E.
 ?*Brama chilensis* Gay, Hist. Chile, Peces, 1843, 218, Chile.

- 2069. *Brama agassizii* Poey.**
 Cuba; rare.
Brama agassizii Poey, Memorias, II, 1861, 204, Cuba.

- 2070. *Brama brevoorti* Poey.**
 Cuba; rare.
Brama brevoorti Poey, Memorias, II, 1861, 206, Cuba.

- Genus 704. TARACTES Lowe.**
Taractes Lowe, Proc. Zool. Soc. Lond., 1843, 82 (*T. asper* Lowe; probably young of *Taractes longipinnis*).
Argo Döderlein, Fische Japans, II, Denkschr. Acad. Wiss. Wien, XLVIII, 1883, 34 (*Argo steindachneri* Döderlein); name preoccupied.

- 2071. *Taractes saussurii* (Lunel).**
 Habana.
Brama saussurii Lunel, Revue du Genre Brama, in Mém. Soc. Phys. Hist. Nat. Genève, XVIII, 1865, 185, tab. 2, Cuba.

Family 171. STEINEGERIIDÆ

Genus 705. STEINEGERIA Jordan and Evermann.

Steinegeria Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 467 (*S. rubescens* Jordan and Evermann).

2072. *Steinegeria rubescens* Jordan and Evermann.

Gulf of Mexico in deep water; one specimen known.

Steinegeria rubescens Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 467, snapper banks off Pensacola, Fla.

Family 172. PTERACLIDÆ

Genus 706. PTERACLIS Gronow.

Pteraclis Gronow, Acta Helvetica, VII, 1772, 43 (*Coryphæna velifera* Pallas).

Pteridium Scopoli, Introd. Hist. Nat., 1777, 454 (*Coryphæna velifera* Pallas).

Oligopodus Lacépède, Hist. Nat. Poiss., II, 1800, 511 (*Coryphæna velifera* Pallas).

Pteraclidus Rafinesque, Analyse de la Nat., 1815, 82, substitute for *Oligopodus* Lacépède.

Oligopodes Risso, in Cuvier, Règne Anim., ed. 1, 1817, 328 (*Oligopode noir* Risso).

Oligopus Risso, Europe Mérid., 1826, 105, substitute for *Oligopodus*.

2073. *Pteraclis carolinus* Cuvier and Valenciennes.

Coast of South Carolina.

Pteraclis carolinus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 272 (368), off coast South Carolina.

?*Pteraclis trichiapterus* Cuvier and Valenciennes, loc. cit., 272 (367), locality unknown.

Genus 707. CENTROPHOLIS Hilgendorf.

Centropholis Hilgendorf, Sitzber. Naturf. Freunde, Berlin, 1878, 135 (*C. petersi* Hilgendorf).

2074. *Centropholis goodei* Jordan.

Gulf Stream.

Pteraclis carolinus Goode and Bean, Oceanic Ichth., 212, Pl. LIX, fig. 218, Gulf Stream; not of Linnæus.

Centropholis goodei Jordan, Ann. Carnegie Mus., IX, 1915, 333, Gulf Stream.

Series STROMATEIFORMES

Family 173. STROMATEIDÆ. Fiatolas

Genus 708. PEPRILUS Cuvier.

Rhombus Lacépède, Hist. Nat. Poiss., II, 1800, 321 (*Chætodon alepidotus* Linnæus); preoccupied in mollusks.

Peprilus Cuvier, Règne Anim., ed. 2, II, 1829, 213 (*Stromateus longipinnis* Mitchill=*Stromateus paru* Linnæus).

2075. *Peprilus paru* (Linnæus). Harvestfish; Poppyfish; Rudderfish.

South Atlantic coast of United States; West Indies; Cape Cod to Jamaica and Brazil.

Stromateus paru Linnæus, Syst. Nat., Ed. X, 1758, 248, Jamaica; based on Sloane.

Chætodon alepidotus Linnæus, op. cit., Ed. XII, 1766, 460, Charleston, S. C.

?*Sternoptyx gardenii* Bloch and Schneider, Syst. Ichth., 1801, 494, Carolinas; after Linnæus.

Stromateus longipinnis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 366, New York Bay.

Genus 709. PALOMETA Jordan and Evermann.

Palometa Jordan and Evermann, Fishes North and Mid. Amer., 1896, 966 (*Stromateus palometa* Jordan and Bollman).

2076. *Palometa simillima* (Ayres). California pampano.

Pacific coast of United States, Puget Sound to San Diego.

Poronotus simillimus Ayres, Proc. Calif. Acad. Nat. Sci., 1st ser., II, 1860, 84, San Francisco.

2077. *Palometa media* (Peters). *Palometa*.
Pacific coast of North America, Mazatlan to Panama.
Stromateus medius Peters, Berl. Monatsb., 1869, 707, Mazatlan, Mexico.
2078. *Palometa palometa* (Jordan and Bollman).
Pacific Ocean, off Colombia.
Stromateus palometa Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 156, off coast of Colombia, lat. $8^{\circ} 16' 30''$ N., long. $79^{\circ} 37' 45''$ W., at Albatross station 2804.
2079. *Palometa snyderi* (Gilbert and Starks).
Panama.
Peprilus snyderi Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 87, Panama.
- Genus 710. **PORONOTUS** Gill.
Poronotus Gill, Cat. Fish. E. Coast N. Amer., Sup. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 35 (*Stromateus triacanthus* Peck).
2080. *Poronotus triacanthus* (Peck). *Dollarfish*; *Harvestfish*; *Butterfish*; *Lafayette*.
Nova Scotia to Florida; common.
Stromateus triacanthus Peck, Mem. Amer. Acad., II, 1800, pt. 2, 48, pl. 2, fig. 2, Piscataqua River, N. H.
Stromateus cryptosus Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 365, New York Bay.
- Genus 711. **EUCROTUS** Bean (B. A.).
Eucrotus Bean, Proc. Biol. Soc. Wash., XXV, 1912, 123 (*E. ventralis* Bean).
2081. *Eucrotus ventralis* Bean.
Bermudas.
Eucrotus ventralis Bean, Proc. Biol. Soc. Wash., XXV, 1912, 125, Bermudas.

Family 174. CENTROLOPHIDÆ. Rudderfishes

- Genus 712. **CENTROLOPHUS** Lacépède. *Black ruffs*.
Centrolophus Lacépède, Hist. Nat. Poiss., IV, 1803, 441 (*Perca nigra* Gmelin = *Coryphæna pompilus* L.).
Acentrolophus Nardo, Prodromus. Adriat. Ichth. Giorn. Fisica di Pavia, sp. 62, 1827, (*A. maculatus* Nardo = *Centrolophus niger* Lacépède, the name *Centrolophus* deemed inappropriate).
Gymnocephalus Cocco, Nuov. Ann. Sci. Nat., II, 1838, 26 (*G. messinensis* Cocco); name preoccupied.
Pompilus Lowe, Suppl. Fish. Madeira, Proc. Zool. Soc. London, VII, 1839, 81 (*Coryphæna pompilus* L.).
2082. *Centrolophus niger* (Gmelin). *Blackfish*; *Black ruffe*; *Borlase*.
Coasts of southern Europe; once taken at Dennis, Mass.
Perca nigra Gmelin, Syst. Nat., 1788, 1321, Cornwall.
Centrolophus liparis Risso, Eur. Mérid., III, 1826, 337, Nice, Italy.
Centrolophus morio Lacépède in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 254 (342), Mediterranean.
Centrolophus pompilus Cuvier and Valenciennes, loc. cit., 247 (334), pl. 269; not of Linnæus.
Acentrolophus maculosus Nardo, Prodr. Ichth. Adriat., No. 62, Isis, 1827, Adriatic.
Gymnocephalus messinensis Cocco, Nuovi Ann. Sci. Nat., II, 1838, 26, Messina.
- Genus 713. **PALINURICHTHYS** Bleeker. *Black rudderfishes*.
Palinurus DeKay, N. Y. Fauna: Fishes, 1842 (*Coryphæna perciformis* Mitchell); name preoccupied in Crustacea.
Palinurichthys Bleeker, Enum. Spec. Pisc. Arch. Ind., in Acta Soc. S. Indo-Neerl., VII, November, 1859, 22 (*Coryphæna perciformis*, Mitchell).
Palinurichthys Gill, Proc. Acad. Nat. Sci. Phila., XII, January, 1860, 20 (*Coryphæna perciformis* Mitchell).
Pammelus Günther, Cat., II, June, 1860, 485 (*Coryphæna perciformis* Mitchell).

2083. *Palinurichthys perciformis* (Mitchill). *Rudderfish; Logfish; Snipnose mullet; Black rudderfish*
Atlantic coast of North America from Cape Hatteras to Maine; once taken in Cornwall.
Coryphæna perciformis Mitchill, Amer. Month. Mag., II, 1818, 244, New York Harbor.
Pimelepterus cornubiensis Cornish Zoologist, IX, 1874, 4255, Penzance, Cornwall (a stray specimen floated across in a fish box).

Genus 714. *SCHEDOPHILUS* Cocco.

Schedophilus Cocco, Giorn. Innom. Messina, Ann., III, 1834, No. 7, 57, (*S. medusophagus* Cocco).
Crius Valenciennes, Ichth. Îles Canaries, II, 1844, 43 (*Crius bertheloti* Valenciennes = *Schedophilus medusophagus* Cocco).

2084. *Schedophilus heathi* Gilbert.

Monterey Bay.

Schedophilus heathii Gilbert, Proc. Calif. Acad. Sci., ser. 3, Zool., III, 1904, 260, Pl. XXVI, Pacific Grove, Calif.

Genus 715. *ICICHTHYS* Jordan and Gilbert.

Ichthys Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 305 (*I. lockingtoni* Jordan and Gilbert).

2085. *Ichthys lockingtoni* Jordan and Gilbert.

Off California, in deep water; a surface swimmer, hovering under jelly-fishes; known from off Monterey and San Francisco.

Ichthys lockingtoni Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 305, off San Francisco.

Family 175. *NOMEIDÆ*. Man-of-war fishes

Genus 716. *NOMEUS* Cuvier.

Nomeus Cuvier, Règne Anim., ed. 1, II, 1817, 315 (*Gobius gronovii* Gmelin).

2086. *Nomeus gronovii* (Gmelin). *Portuguese man-of-war fish; Harder; Pastor.*

Tropical parts of the Atlantic and Indian Oceans; Sargasso Sea; Florida; Bermuda; Woods Hole, Mass.; rocky pools at Panama.

Gobius gronovii Gmelin, Syst. Nat., Ed. XIII, 1788, 1205, tropical America; after Gronow.

Eleotris mauritii Bloch and Schneider, Syst. Ichth., 1801, 66, Brazil.

Nomeus maculosus Bennett, Proc. Comm. Zool. Soc., I, 1831, 146, East Indies.

Nomeus oxyurus Poey, Memorias, II, 1861, 236, Habana.

Genus 717. *PSENES* Cuvier and Valenciennes.

Psenes Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 193 (259), (*P. cyanophrys* Cuvier and Valenciennes).

2087. *Psenes cyanophrys* Cuvier and Valenciennes.

Open sea; Atlantic, Pacific, and Indian Oceans; Jamaica and Martinique.

Psenes cyanophrys Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 193 260, pl. 265, New Ireland.

Psenes javanicus Cuvier and Valenciennes, loc. cit., 196 (264), Batavia.

Psenes auratus Cuvier and Valenciennes, loc. cit., 197 (264), Gulf of Bengal.

Psenes fuscus Guichenot, Mem. Soc. Sci. Nat. Cherbourg, XII, 1866, 138, Madagascar.

Cubiceps multiradiatus Günther, Proc. Zool. Soc. Lond., 1871, 661, pl. 61, Manado.

2088. *Psenes maculatus* Lütken.

Open Atlantic.

Psenes maculatus Lütken, Spolia Atlantica, 1880, 110, open Atlantic, lat. 39° N., long. 25° S. and between 34° and 27° W. in 600 to 700 fathoms.

2089. *Psenes regulus* Poey.

Coasts of Cuba.

Psenes regulus Poey, Synopsis, 1868, 375, Cuba.

2090. *Psenes pellucidus* Lütken.
Gulf Stream at 32° 24' N., 76° 55' W., in 528 fathoms.
Psenes pellucidus Lütken, Spolia Atlantica, 1880, 516 (108), with fig., Strait of Surabaja.
2091. *Psenes edwardsii* Eigenmann.
Off Rhode Island.
Psenes edwardsii Eigenmann, Bull. U. S. Fish Com., XXI, 1901 (1902), 35, fig.; taken from under a medusa, 30 miles south of Newport, R. I.
2092. *Psenes chapmani* Fowler.
Open Atlantic, Cape Verde Islands, northwest of the Lesser Antilles.
Psenes chapmani Fowler, Proc. Acad. Nat. Sci. Phila., LVIII, 1906, 120; open Atlantic, lat. 24° 21' N., long. 34° 32' W.
2093. *Psenes pacificus* Meek and Hildebrand.
Panama.
Psenes pacificus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 409, Chame Point, Panama.

Family 176. TETRAGONURIDÆ. Squaretails

Genus 718. TETRAGONURUS Risso.

- Tetragonurus* Risso, Ichth. Nice, 1810, 247 (*T. cuvieri* Risso).
Ctenodax Macleay, Proc. Linn. Soc. New South Wales, 1885, 716 (*C. williamsoni* Macleay).

2094. *Tetragonurus cuvieri* Risso. *Squartail*; *Escolar de natura*; *Courpata*; *Sea raven*.
Open seas; Nice; Toulon and Marseilles; Madeira; once taken off Santa Catalina Island, Calif. (W. F. Thompson), and once at Woods Hole, Mass.; these possibly different species.
Tetragonurus cuvieri Risso, Ichth. Nice, 1810, 347, Nice.
Tetragonurus atlanticus Lowe, Fishes Madeira, pt. 5, 1860 (1843), 129, Pl. XIX, Madeira.

Family 177. ICOSTEIDÆ. Ragfishes

Genus 719. ICOSTEUS Lockington.

- Icosteus* Lockington, Proc. U. S. Nat. Mus., III, 1880, 63 (*I. ænigmaticus* Lockington).
Schedophilopsis Steindachner, Ichth. Beitr., XI, 1881, 4 (*S. spinosus* Steindachner = *Icosteus ænigmaticus* Lockington).

2095. *Icosteus ænigmaticus* Lockington. *Ragfish*.
Open sea off the coasts of California, Oregon, and Washington; scarce.
Icosteus ænigmaticus Lockington, Proc. U. S. Nat. Mus., III, 1880, 63, off San Francisco.
Schedophilopsis spinosus Steindachner, Ichth. Beitr., XI, 1881, 4, with figure, off San Francisco.

Family 178. ACROTIDÆ

Genus 720. ACROTUS Bean.

- Acrotus* Bean, Proc. U. S. Nat. Mus., X, 1887, 631 (*A. willoughbyi* Bean).

2096. *Acrotus willoughbyi* Bean.

- Off coast of Washington, Whitby Island, Puget Sound, south to San Pedro, Calif. (W. F. Thompson), in rather deep water.
Acrotus willoughbyi Bean, Proc. U. S. Nat. Mus., X, 1887, 631, Quinalt Agency, Wash.

Family 179. CARANGIDÆ. Cavallas; Pampanos

The *Carangidæ*, as heretofore understood, may be naturally divided into two families, the *Seriolidæ* (*Seriola*, *Elagates*, *Naucrates*, etc.) differing strongly in lacking the bony arch behind the abdominal cavity, this being made up of enlarged and ankylosed hæmals, its character somewhat different in different genera but developed in all *Carangidæ* in the narrow sense.

Genus 721. DECAPTERUS Bleeker. *Mackerel scads.*

Decapterus Bleeker, Naturk. Tijdsch., VIII, 1855, 417 (*Caranx kurra* Bleeker).

Eustomatodus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 261 (*Decapterus kurroides* Bleeker).

Gymnecipignathus Gill, loc. cit., 261 (*Decapterus macrosoma* Bleeker).

Evepigymnus Gill, loc. cit., 261 (*Decapterus hypodus* Gill).

2097. Decapterus punctatus (Agassiz). *Scad; Round robin; Cigarfish; Quiaquia; Dotted scad.*

Cape Cod to Brazil, coasts of Florida and the West Indies.

Caranx punctatus Agassiz, in Spix, Pisc. Brasil., 1829, 108, pl. 56a, fig. 2, Brazil.

Caranx aureus Risso, in Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 25 (33), Mediterranean.

2098. Decapterus sanctæ-helenæ (Cuvier and Valenciennes).

Tropical Atlantic; Cuba.

Caranx sanctæ-helenæ Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 28 (37), St. Helena.

2099. Decapterus hypodus Gill.

Cape San Lucas, Lower California.

Decapterus hypodus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 262, Cape San Lucas, Lower California.

2100. Decapterus macarellus (Cuvier and Valenciennes). *Mackerel scad; Antonino; Cigarfish.*

West Indies, northward to Cape Cod.

Caranx macarellus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 30 (40), Martinique.

Genus 722. TRACHURUS Rafinesque. *Saurels.*

Trachurus Rafinesque, Caratteri, 1810, 41 (*Scomber trachurus* Linnæus).

2101. Trachurus symmetricus (Ayres). *Horse mackerel.*

Coast of California.

Caranx symmetricus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 62, Bay of San Francisco.

2102. Trachurus trachurus (Linnæus). *Saurel; Gascon.*

North Atlantic, chiefly on the northern coast of Europe, south to Spain and Naples; Newport, R. I.; Pensacola.

Scomber trachurus Linnæus, Syst. Nat., Ed. X, 1758, 298, Mediterranean.

?*Caranxomorus plumiciranus* Lacépède, Hist. Nat. Poiss., III, 64, pl. 11, scarcely identifiable, from a figure by Plumier, supposed to have been made in Martinique.

Caranx semispinosus Nilsson, Prodr. Ichthyol. Scand., 1832, 84, Scandinavia; the northern form usually called *trachurus*, the valid name for the European form.

Trachurus europæus Gronow, Cat., Ed. Gray, 1854, 125, seas of Europe.

Trachurus linnæi Malm, Bohusläns Fauna, 421, Bohuslän, Sweden.

2103. Trachurus japonicus (Schlegel).

Coast of Japan, east of Lower California, the Mexican specimens few and not surely identified; may be *T. nova-zealandica* Richardson.

Caranx trachurus japonicus Schlegel, Faun. Japon., Poiss., 1850, 109, pl. 59, fig. 1, Japan.

2104. Trachurus lathamii Nichols.

Coast of Long Island (a stray from the Gulf Stream).

Trachurus lathamii Nichols, Bull. Amer. Mus. Nat. Hist., XLII, 1920, 479, Long Island.

Genus 723. TRACHUOPS⁴³ Gill.

Trachuops Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 238, 261, 431 (*Scomber crumenophthalmus* Bloch).

⁴³ The genus *Selar* Bleeker was based on four species, the first named being *Caranx hasselti*, which is a species of the modern genus *Atule* Jordan and Jordan. It was first restricted to *Scomber boops* Bleeker, a species of *Trachuops*; but this restriction can not stand as *boops* was not mentioned by Bleeker in connection with *Selar*: *Caranx hasselti*=*affinis* of the south Pacific must therefore be the type of *Selar*.

- 2105. *Trachurops crumenophthalma*** (Bloch). *Goggler*; *Big-eyed scad*; *Goggle-eye jack*; *Chicharro*; *Horse-eyed jack*.
Atlantic coast of the United States, Central America, South America, and Africa; West Indies; probably not in the Pacific.
Scomber crumenophthalmus Bloch, Naturgeschich. Ausl. Fische, VII, 1793, 77, Acara in Guinea.
Scomber plumieri Bloch, loc. cit., 79, Antilles.
Scomber balantiophthalmus Bloch and Schneider, Syst. Ichth., 1801, 29, Guinea.
Caranx macrophthalmus Agassiz, Spix, Pisc. Brasil., 1829, 107, Brazil.
- 2106. *Trachurops brachychira*** Gill. *Akule*; *Atule*.
Pacific Ocean, north to Panama, and the Gulf of California and Hawaii.
Trachurops brachychirus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 261, Cape San Lucas.
- Genus 724. HEMICARANX** Bleeker.
Alepes Swainson, Classn. Anim., II, 1839, 248 (*Alepes melanoptera* Swainson); identification uncertain.
Hemicaranx Bleeker, Vesl. Kon. Ak. Wet., XIV, 1862, 135 (*H. marginatus* Bleeker).
Carangops Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 238 (*Caranx heteropygus* Poey).
- 2107. *Hemicaranx amblyrhynchus*** (Cuvier and Valenciennes).
Cape Hatteras to Brazil; West Indies; Carolina and Florida.
Caranx amblyrhynchus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 76 (100), pl. 248, Brazil.
Caranx heteropygus Poey, Memorias, II, 1861, 344, Cuba.
- 2108. *Hemicaranx falcatus*** (Holbrook).
Charleston, S. C.
Caranx falcatus Holbrook, Ichth. South Carolina, 1855, 92, pl. 13, fig. 2, Charleston, S. C.
- 2109. *Hemicaranx atrimanus*** (Jordan and Gilbert).
Pacific coast of tropical America; Panama.
Caranx atrimanus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 308, Panama.
- 2110. *Hemicaranx furthii*** (Steindachner).
Panama.
Caranx fürthii Steindachner, Ichth. Beitr., IV, 1875, 12, Panama.
- 2111. *Hemicaranx leucurus*** (Günther).
Pacific coast of tropical America; Panama.
Caranx leucurus Günther, Proc. Zool. Soc. Lond., 1864, 24, Panama.
- 2112. *Hemicaranx zelotes*** Gilbert.
Panama.
Hemicaranx zelotes Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2845, Panama.
- 2113. *Hemicaranx rhomboides*** Meek and Hildebrand.
Atlantic coast of Isthmus of Panama.
Hemicaranx rhomboides Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 345, Fox Bay, Colon, Panama.
- Genus 725. ELAPHOTOXON**⁴⁹ Fowler.
Elaphotoxon Fowler, Proc. Acad. Nat. Sci. Phila., LVII, 1905, 76 (*Scomber ruber* Bloch).
- 2114. *Elaphotoxon ruber*** (Bloch). *Cibi mancho*; *Carbonero*; *Cibi*; *Green jack*.
West Indies and coast of the Carolinas.
Scomber ruber Bloch, Naturgeschich. Ausl. Fische, VII, 1793, 75, St. Croix.
Caranx blochii Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 52 (69), St. Croix.
Caranx iridinus Poey, Memorias, II, 1861, 226, Cuba.

⁴⁹ This genus is near *Caranx*, the body rather elongate, the teeth in few series, without canines; the arch of the lateral line moderate, more than half the straight part; the dorsal and anal fins anteriorly but little elevated, maxillary not narrowed.

2115. *Elaphotoxon bartholomæi* (Cuvier and Valenciennes). *Yellow jack; Cibi amarilla.*
West Indies, northward to Florida and North Carolina; Cuba.
Caranx bartholomæi Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 75 (100), St. Bartholomew.
Caranx cibi Poey, Memorias, II, 1861, 224, Cuba.
Caranx beani Jordan, Proc. U. S. Nat. Mus., III, 1880, 486, Beaufort, N. C.
- Genus 726. **PARATRACTUS** Gill.
Paratractus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 432 (*Caranx pisquetus* Cuvier and Valenciennes = *Scomber crysos* Mitchill).
2116. *Paratractus crysos* (Mitchill). *Hardtail; Runner; Blue runner; Jurel; Yellow mackerel; Crevallé; Cojinera.*
Cape Cod to Brazil.
Scomber crysos Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 424, New York.
Trachurus squamosus Gronow, Cat. Fishes, ed. Gray, 1854, 125, Carolina.
Caranx pisquetus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 73, Santo Domingo; Cuba; Brazil.
2117. *Paratractus caballus* (Günther). *Cocinero; Cocinero dorado; Jurel.*
Pacific coast of tropical America, San Diego to Panama, recently taken at San Pedro.
Caranx caballus Günther, Trans. Zool. Soc. Lond., VI, 1868, 431 (Nov. 27), Panama.
Trachurus boops Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 108, San Diego; not *Caranx boops* of Cuvier and Valenciennes.
Caranx girardi Steindachner, Ichthyol. Notizen, IX, 1869, 25, Mazatlan.
- Genus 727. **XUREL** Jordan and Evermann.
Xurel Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 505 (*Caranx vinctus* Jordan and Gilbert).
2118. *Xurel vineta* (Jordan and Gilbert). *Cocinera.*
Pacific coast of Mexico, Mazatlan to Punta Arenas; Gulf of California to Panama.
Caranx vinctus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 349, Mazatlan, Mexico.
2119. *Xurel fasciatus* (Cuvier and Valenciennes). *Segundo; Volantin.*
Cuba; Atlantic coast of Mexico.
? *Caranx fasciatus* Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 53 (70), east coast of Mexico.
Caranx secundus Poey, Memorias, II, 1861, 223, Cuba.
2120. *Xurel lata* (Agassiz). *Jurel; Xurel; Horse-eye jack.*
Tropical Atlantic, north to Virginia; probably not in the Pacific, where it is represented by the near related *Caranx melampygus*.
Caranx latus Agassiz, in Spix, Pisc. Bras., 1829, 105, Brazil.
Caranx lepturus Agassiz, loc. cit., 106, Brazil.
Caranx fallax Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 71 (95), Antilles; Brazil.
Caranx richardi Holbrook, Ichthyol. South Carolina, 1855, 94, pl. 13, fig. 1, South Carolina.
Caranx aureus Poey, Enumeratio, 1875, 76, Cuba.
2121. *Xurel medusicola* (Jordan and Starks).
Pacific coast of Mexico, south to Panama.
Caranx medusicola Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 430, pl. 34, Mazatlan.
2122. *Xurel marginatus* (Gill).
Pacific Ocean; Mazatlan, Panama, and Hawaii.
Caranx marginatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166, Panama.
2123. *Xurel melampygus* (Cuvier and Valenciennes). *Ulua.*
Tropical Pacific, east to off-shore islands of Mexico; Hawaii. A very important food fish.
Caranx melampygus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 103, East Indies.

- 2124. *Xurel stellatus*** (Eydoux and Souleyet). *Omlu*.
Pacific Ocean generally; Hawaii; Revillagigedo Islands; with the
"Ulua" one of the staple food fishes of the Pacific islands.
Caranx punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833,
38; name preoccupied.
Caranx stellatus Eydoux and Souleyet, Voy. Bonite, Zool., I, Poiss.,
1840, 167, Hawaiian Islands.
- 2125. *Xurel lugubris*** (Poey). *Tiñosa*.
Tropical Atlantic; West Indies.
Caranx lugubris Poey, Memorias, II, 1861, 222, Cuba.
Caranx frontalis Poey, loc. cit., 222, Cuba.
- 2126. *Xurel tenebrosus*** Jordan and Evermann.
South seas; Revillagigedos; Hawaii.
Caranx lugubris Jordan and Evermann, Fishes North and Mid. Amer.,
1896, 924, in part; not of Poey, based on examples so listed by Jordan
and McGregor, Report U. S. Fish Com., XXIV, 1899, 227, from
Clarion Island of the Revillagigedos Group.
Caranx tenebrosus Jordan and Evermann, Proc. Calif. Acad. Sci., 4th
Ser., XVI, Nov. 14, 1927, 656, Clarion Island.
- Genus 728. *CARANX* Lacépède.**
Caranx Lacépède, Hist. Nat. Poiss., III, 1802, 57 (*Scomber carangus*
Bloch = *Scomber hippos* L., as now usually restricted). Species with
the breast naked except for a central patch of scales.
Tricropterus Rafinesque, Caratteri, 1810, 41 (*Scomber carangus* Bloch =
Scomber hippos Linnaeus), as restricted.
Carangichthys Bleeker, Nat. Tijdschr. Neder. Indie, III, 1852, 760 (*C.*
typus Bleeker); immature; fish with breast naked; strong teeth
present.
- 2127. *Caranx hippos*** (Linnaeus). *Crecallé*; *Toro*; *Horse crecallé*; *Cavalla*; *Jack*;
Jiguagua; *Yellow caranz*; *Yellow mackerel*.
East coast of tropical America, north to Cape Cod; apparently repre-
sented in the Pacific by the closely related *Caranx ignobilis*.
Scomber hippos Linnaeus, Syst. Nat., Ed. XII, 1766, 494, Charleston,
S. C.
Scomber carangus Bloch, Naturgeschichte. Ausl. Fische, VII, 1793, 69,
Antilles.
Caranx erithrurus Lacépède, Hist. Nat. Poiss., III, 1802, 68, South
Carolina.
Caranx daubentonii Lacépède, loc. cit., 72, Martinique.
Caranx antillarum Bennett, Whaling Voyage, II, 1840, 282, West Indies.
Caranx defensor DeKay, N. Y. Fauna: Fishes, 1842, 120, New York.
Carangus esculentus Girard, U. S. Mex. Bound. Surv., 1859, 23, pl. XI,
figs. 1-3, Brazos Santiago, Tex.
- 2128. *Caranx ignobilis*** Forskål.
Tropical Pacific, east to offshore islands of Mexico; Hawaii.
Scomber ignobilis Forskål, Descr. Anim., 1775, Red Sea.
Carangus hippoides Jenkins, Bull. U. S. Fish Com., XXII, 1902, 443,
fig. 15, Honolulu.
- Genus 729. *GNATHANODON* Bleeker.**
Gnathanodon Bleeker, Verh. Batav. Genootsch., XXIV, Makreele,
art. 5, 1851 (1852), pp. 6, 18, 30, 72, etc. (*Scomber speciosus* Forskål).
Hypocaranx Klunzinger, Fische Rothen Meeres, 1884, 92 (*Scomber*
speciosus Forskål).
- 2129. *Gnathanodon speciosus*** (Forskål). *Mojarra dorada*.
Tropical parts of the Pacific Ocean; East Indies; Mazatlan to Panama;
Hawaii.
Scomber speciosus Forskål, Descr. Anim., 1775, 54, Red Sea.
Scomber rim Forskål, loc. cit., 54, Djidda.
Caranx panamensis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166,
Panama.
- Genus 730. *CITULA* Cuvier.**
Citula Cuvier, Règne Anim., ed. 1, 1817, 315 (*Sciæna armata* Forskål).

2130. *Citula orthogramma* (Jordan and Gilbert).
Revillagigedo Islands; Pacific Islands.
Caranx orthogrammus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 226, Sulphur Bay, Clarion Island, Revillagigedo Archipelago.
2131. *Citula dorsalis* (Gill). *Pampano*.
Pacific coast of tropical America; Mazatlan; Panama.
Carangoides dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166, Panama.
Caranx otrynter Jordan and Gilbert, Proc. U. S. Nat. Mus., 1883, 202; new name substituted for *dorsalis* preoccupied in *Caranx*, but not in *Citula*.
- Genus 731. **ALECTIS**⁵⁰ Rafinesque. *Cobblerfishes; Cockfishes*.
Gallus Lacépède, Hist. Nat. Poiss., IV, 1803 (*Zeus gallus* L.); preoccupied in birds.
Alectis Rafinesque, Anal. Nature, 1815, (*Zeus gallus* L.); substitute for *Gallus*, preoccupied.
Blepharis Cuvier, Règne Animal, 1817, 322 (*Zeus ciliaris* Bloch).
Gallichthys Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 264 (*Zeus gallus* L.); substitute for *Gallus*, preoccupied.
Bleparichthys Gill, Cat. Fish. East Coast U. S., suppl. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 36; substitute for *Blepharis*.
2132. *Alectis crinitus* (Mitchill). *Threadfish; Cobblerfish; Sunfish; Shoemaker*.
West Indies north to Cape Cod, Florida Keys and Cuba.
Zeus crinitus Mitchill, Amer. Jour. Sci. Arts, XI, 1826, 144, Shoreham, Mass.
Blepharis sutor Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 120 (161), pl. 253, Caribbean Sea.
Blepharis major Cuvier and Valenciennes, loc. cit., 121 (163), West Indies; Martinique; not *Gallichthys major*, an East Indian species.
Carangoides blepharis Bleeker, Verhand. Batav. Genootsch., XXIV, 1852, Makr. 667, East Indies.
Carangoides gallichthys Bleeker, loc. cit., 668, East Indies.
- Genus 732. **SCYRIS** Cuvier.
Scyris Cuvier, Règne Anim., ed. 2, II, 1829, 209 (*S. indica* Cuvier and Valenciennes).
2133. *Scyris analis* Poey.
Cuba.
Scyris analis Poey, Synopsis, 1868, 369, Cuba.
- Genus 733. **HYNNIS** Cuvier and Valenciennes.
Hynnys Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 145 (195), pl. 257 (*H. goreensis* Cuvier and Valenciennes).
2134. *Hynnys cubensis* Poey.
Cuba.
Hynnys cubensis Poey, Memorias, II, 1861, 235, Habana.
2135. *Hynnys hopkinsi* Jordan and Starks. *Pampano*.
Puerto Viejo, near Mazatlan, Mexico.
Hynnys hopkinsi Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 435, pl. 35, Mazatlan.
- Genus 734. **VOMER** Cuvier and Valenciennes.
Vomer Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 141 (189), pl. 256 (*V. brownii* Cuvier and Valenciennes=*Zeus setapinnis* Mitchell).
Platysomus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 250 (*Vomer browni* Cuvier and Valenciennes).

⁵⁰ The genera and species allied to *Alectis* have been much mixed from the first. While other possibilities exist, and may be defended, it seems best to adhere to current nomenclature, which, in fact, accords best with the Code.

- 2136. *Vomer setapinnis* (Mitchill).** *Jorobado; Moonfish; Horsefish; Blunt-nosed shiner; Sunfish; Pug-nosed shiner.*
Atlantic coast of America; from Maine to Florida.
Zeus setapinnis Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 384, New York.
Vomer brownii Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 141 (189), pl. 256, New York.
Argyreus unimaculatus Batchelder, Proc. Bost. Soc. Nat. Hist., II, 1845, 78, Maine.
Vomer curtus Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 119, Rhode Island.
- 2137. *Vomer setapinnis cubensis* Nichols.**
Coast of Cuba.
Vomer setapinnis cubensis Nichols, Bull. Amer. Mus. Nat. Hist., XXXVIII, 1918, 672, Cuba.
- 2138. *Vomer dorsalis* Gill.**
West coast of Africa, recorded from the West Indies.
Vomer dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 436; after Günther.
Argyreus setipinnis var. B. Günther, Cat., II, 1860, 459, St. Vincent; Cape Verde Islands; West Indies.
Vomer senegalensis Guichenot, Ann. Soc. Linn. Maine et Loire, 1865, 35, Senegal.
Vomer goreensis Guichenot, loc. cit., 37, Gorea.
- 2139. *Vomer spixii* (Swainson).**
West Indies south to Brazil.
Platysomus spixii Swainson, Class. Fishes, etc., II, 1839, 250 and 406, Brazil; after Spix and Agassiz, pl. 37.
Platysomus micropteryx Swainson, loc. cit., 406, Pernambuco.
Vomer sanctæ-marthæ, columbianus, martinicensis, dominicensis, novæ-boracensis, sanctæ-petri, brasiliensis, cayennensis, and cubæ Guichenot, Ann. Soc. Linn. Maine et Loire, 38 to 44, 1865, localities indicated by names.
- 2140. *Vomer declivifrons* Meek and Hildebrand.**
Cape San Lucas to Peru.
Vomer declivifrons Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 367, Pl. XXIX, fig. 2, Panama.
- 2141. *Vomer gabonensis* Guichenot.**
West Indies and west coast of Africa.
Vomer gabonensis Guichenot, Ann. Soc. Linn. Maine et Loire, 1865, 42, Gaboon.
- Genus 735. ARGYREIOSUS Lacépède.** *Moonfishes.*
Selene Lacépède, Hist. Nat. Poiss., IV, 1803, 560 (*S. argentea* Lacépède = *Zeus vomer* L.).
Argyreus Lacépède, loc. cit., IV, 1803, 566 (*Zeus vomer* Linnæus).
- 2142. *Argyreus vomer* (Linnæus).** *Moonfish; Jorobado; Lookdown; Horse-head; Hair-finned dory; Hair-finned silverfish; Dollarfish.*
Tropical America, on both coasts; Cape Cod to Brazil; Lower California to Peru.
Zeus vomer Linnæus, Syst. Nat., Ed. X, 1758, 266, America.
Zeus gallus Linnæus, loc. cit., America; after Artedi.
Zeus capillaris Mitchill, Trans. Lit. and Phil. Soc., I, 383, 1815, New York.
Zeus rostratus Mitchill, loc. cit., 384, New York.
Zeus geometricus Mitchill, Amer. Month. Mag., II, 245, 1818, New York.
Argyrius triacanthus Swainson, Nat. Hist. Classn. Fish., 1839, 250, Brazil.
Argyrius filamentosus Swainson, loc. cit., 250; after Cuvier and Valenciennes.
Argyrius setifer Swainson, loc. cit., 407; after Cuvier and Valenciennes.
Argyrius mauriceii Swainson, loc. cit., 408, Brazil.
Argyrius mitchilli DeKay, N. Y. Fauna: Fishes, 1842, 126, New York.
- 2143. *Argyreus ærstedii* (Lütken).**
Pacific coast, Mazatlan to Panama.
Selene ærstedii Lütken, Spolia Atlantica, 1880, 144, Punta Arenas.

2144. *Argyreiosus brevoorti* Gill.

Lower California to Peru.

Argyriosus brevoorti Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 83, Lower California.*Argyreiosus pacificus* Lockington, Proc. Calif. Acad. Sci., first ser., VII, 1876, 84, Magdalena Bay, Lower California.**Genus 736. *CHLOROSCOMBRUS* Girard. *Casabes*.***Chloroscombrus* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 168(*Micropteryx cosmopolita* Agassiz = *Scomber chrysurus* Linnæus).*Micropteryx* Günther, not of Agassiz, which is *Seriola*.**2145. *Chloroscombrus chrysurus* (Linnæus). *Casabe*; *Bumper*; *Yellowtail*.
Cape Cod to Brazil; common on our South Atlantic coast and in Cuba.
Scomber chrysurus Linnæus, Syst. Nat., ed. XII, 1766, 494, Charleston, S. C.***Micropteryx cosmopolita* Agassiz, in Spix, Pisc. Bras., 1829, 104, Tab. LIX, Atlantic Ocean.*Scomber latus* Gronow, Cat. Fishes, ed. Gray, 1854, 127, Carolina.*Chloroscombrus caribbæus* Girard, Mex. Bound. Surv., Zool., 1859, 21, Pl. XI, fig. 6, St. Joseph Island, Tex.**2146. *Chloroscombrus orqueta* Jordan and Gilbert. *Orqueta*; *Xurel de Castilla*.**

Pacific coast of tropical America, Magdalena Bay to Panama.

Chloroscombrus orqueta Jordan and Gilbert, Proc., U. S. Nat. Mus., V, 1862, 646, Panama.*Chloroscombrus stirurus* Jordan and Gilbert, loc. cit., VI, 1883, 206, Panama; slip for *C. orqueta* imperfectly corrected proof.**Genus 737. *TRACHINOTUS* Lacépède. *Pámpanos*.***Trachinotus* Lacépède, Hist. Nat. Poiss., III, 1802, 79 (*Labrus falcatus* Linnæus).*Cæsiomorus* Lacépède, loc. cit., 92 (*C. bailloni* Lacépède).*Acanthinion* Lacépède, loc. cit., IV, 1803, 499 (*Chætodon rhomboides* Linnæus).*Baillonus* Rafinesque, Analyse Nature, X, 1815 (*Trachinotus bailloni* Lacépède); substitute for *Cæsiomorus*.*Bothrolæmus* Holbrook, Ichth. South Carolina, 1855, 80 (*Trachinotus pampanus* Cuvier and Valenciennes).*Doliodon* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 168 (*Gasterosteus carolinus* Linnæus).**2147. *Trachinotus palometa* Regan. *Gafftopsail*; *Pámpano*; *Oldwife*; *Palometa*; *Banner pompano*.**

Tropical America, from Virginia to the Caribbean Sea.

Chætodon glaucus Bloch, Ichth., 1787, pl. 210, Martinique; on a figure by Plumier (name preoccupied by *Lichia glauca* L., also a *Trachinotus*).*Trachynotus palometa* Regan, Ann. Mag. Nat. Hist., (7), XII, 1903, 349; substitute for *glaucus* Bloch).**2148. *Trachinotus rhodopus* (Gill). *Pampanito*.**

Pacific coast of tropical America; south to Panama.

Trachynotus rhodopus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 85, Cape San Lucas.? *Trachynotus nasutus* Gill, loc. cit., 85, Cape San Lucas.*Trachynotus fasciatus* Gill, loc. cit., 86, Panama.*Trachynotus glacoides* Günther, Proc. Zool. Soc. Lond., 1864, 150, San Jose de Guatemala.**2149. *Trachinotus falcatus* (Linnæus). *Round pampano*; *Palometa*; *Permit* (Indian River) *Spinous dory*; *Ovate pampano*.**

East coast of United States, Cape Cod to Florida.

Labrus falcatus Linnæus, Syst. Nat., ed. X, 1758, 284, America.*Trachinotus spinosus* DeKay, N. Y. Fauna: Fishes, 1842, 117, pl. 19, fig. 53, New York Harbor.*Trachinotus fuscus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 302 (410), Brazil.

2150. *Trachinotus rhomboides* (Bloch). *Round pampano*.
West Indies to Brazil.
Chatodon rhomboides Bloch, Nat. Ausl. Fische, III, 1787, 100, Martinique.
2151. *Trachinotus culveri* Jordan and Starks.
Pacific coast of Mexico.
Trachinotus culveri Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 439, pl. 36, Astillero at Mazatlan, Mexico.
2152. *Trachinotus kennedyi* Steindachner. *Palometa*.
Magdalena Bay to Panama.
Trachinotus kennedyi Steindachner, Ichth. Beitr., III, 1875, 47, Pl. VII, Magdalena Bay.
2153. *Trachinotus goodei* Jordan and Evermann. *Permit; Palometa; Great pampano*.
West Indies, north to southern Florida.
Trachinotus goodei Jordan and Evermann, Fishes North and Mid. Amer., 1896, 943, Key West, Fla.
2154. *Trachinotus carolinus* (Linnaeus). *Common pampano; Pámpano; Cobblerfish; Butterfish; Carolina pompano*.
South Atlantic and Gulf coasts of United States; Cape Cod; West Indies; Brazil. One of our best food fishes.
Gasterosteus carolinus Linnaeus, Syst. Nat. ed. XII, 1766, 490, Carolina.
? *Trachinotus argenteus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 304 (410), New York; Rio Janeiro.
? *Trachinotus cupreus* Cuvier and Valenciennes, loc. cit., 305 (414), Martinique.
Trachinotus pampanus Cuvier and Valenciennes, loc. cit., 305 (415), Brazil; Charleston, S. C.
2155. *Trachinotus paloma* Jordan and Starks.
Cape San Lucas, Mazatlan, San Juan Lagoon.
Trachinotus paloma Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 437, Mazatlan, Mexico.
- Genus 738. *ZALOCYS* Jordan and McGregor.
Zalocys Jordan and McGregor (R. C.), Rept. U. S. Fish. Com., XXIV, 1898 (1899), 276 (*Zalocys stilbe* Jordan and McGregor).
2156. *Zalocys stilbe* Jordan and McGregor.
Off Pacific coast of Mexico, Revillagigedo Islands.
Zalocys stilbe Jordan and McGregor, Rept. U. S. Fish. Com., XXIV, 1898 (1899), 277, pl. 5, Clarion Island.
- Genus 739. *OLIGOPLITES* Gill. *Leatherjackets*.
Oligoplites Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166 (*O. occidentalis* Gill).
2157. *Oligoplites saurus* (Bloch and Schneider). *Leatherjacket; Leathercoat; Runner; Zapatero; Quiebra; Sauteur*.
Both coasts of Central America, and West Indies, north to New York and Lower California.
Scomber saurus Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 321, Jamaica; after *Saurus argenteus* of Browne.
Centronotus argenteus Lacépède, Hist. Nat. Poiss., III, 1802, 316, equatorial America.
Lichia quiebra Quoy and Gaimard, Voy. Freycinet, Zool., 1824, 365, equatorial America.
Chorinemus saltans Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 289 (393), Martinique, Brazil, and San Domingo.
2158. *Oligoplites inornatus* Gill. *Plain leatherjacket*.
Panama.
Oligoplites inornatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 166 Panama.
2159. *Oligoplites saliens* (Bloch). *Sauteur*.
West Indies.
Scomber saliens Bloch, Naturgeschich. Ausl. Fische, VII, 1793, 49, Martinique; on a figure by Plumier.
Scomberoides saltator Lacépède, Hist. Nat. Poiss., II, 1800, pl. 19, fig. 2.

2160. *Oligoplites palometa* (Cuvier and Valenciennes).
Lake Maracaibo, Venezuela.
Chorinemus palometa Cuvier and Valenciennes, Hist. Nat. Poiss., VIII,
1831, 288 (392), Lake Maracaibo, Venezuela.
2161. *Oligoplites altus* (Günther). *Jurel*; *Monda*.
Pacific coast of tropical America; Panama.
Chorinemus altus Günther, Trans. Zool. Soc. London, VI, 1869, 433,
Panama.
2162. *Oligoplites mundus* Jordan and Starks.
West coast of Mexico; Mazatlan.
Oligoplites mundus Jordan and Starks, in Jordan and Evermann,
Check List, 1896, 344, Mazatlan, Mexico (name only); Jordan
and Evermann, Fishes North and Mid. Amer., 1898, 2844, San
Juan Lagoon, Mexico.
2163. *Oligoplites refulgens* Gilbert and Starks.
Panama.
Oligoplites refulgens Gilbert and Starks, Mem. Calif. Acad. Sci., IV,
1904, 73, Panama.

Family 180. SERIOLIDÆ

Genus 740. NAUCRATES Rafinesque.

- Naucrates* Rafinesque, Caratteri 1810, 44 (*Centronotus conductor*
Lacépède=*Gasterosteus ductor* Linnæus).
Centronotus Lacépède, Hist. Nat. Poiss., III, 1802, 311, 51 (*C. conductor*
Lacépède).
Xystophorus Richardson, Voy. *Erebus* and *Terror*, 1844, 52, pl. 30,
fig. 22 (larval form, no species named).
Naucerus Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 247
(*N. compressus*, Cuvier and Valenciennes; young of *Naucrates*).
2164. *Naucrates ductor*. (Linnæus). *Pilotfish*; *Romero*.
Atlantic coast from Cape Cod to West Indies.
Gasterosteus ductor Linnæus, Syst. Nat., ed. X, 1758, 295, "in Pelago."
Centronotus conductor Lacépède, Hist. Nat. Poiss., III, 1802, 311, no
locality.
Naucrates fanfarus Rafinesque, Caratteri, 1810, 45, Sicily.
Naucrates noveboracensis Cuvier and Valenciennes, Hist. Nat. Poiss.,
VIII, 1831, 239 (325), New York.
Seriola dussumieri Cuvier and Valenciennes, loc. cit., IX, 1833, 162
(217), Gulf of Bengal.
Seriola succincta Cuvier and Valenciennes, loc. cit., 163 (218), south of
St. Helena.
Naucerus compressus Cuvier and Valenciennes, loc. cit., 185 (249),
pl. 263, fig. 1, Molucca.
Naucerus abbreviatus Cuvier and Valenciennes, loc. cit., 187 (251),
Atlantic Ocean.
Naucerus brachycentrus Cuvier and Valenciennes, loc. cit., 187 (253),
Indian Ocean.
Naucerus triacanthus Cuvier and Valenciennes, loc. cit., 188 (253),
Atlantic Ocean.
Naucerus annularis Cuvier and Valenciennes, loc. cit., 189 (254), south
of St. Helena.
Naucerus lecurus Cuvier and Valenciennes, loc. cit., 189 (255), south
of St. Helena.
Naucrates cyanophrys Swainson, Classn. Fishes, II, 1839, 412, Palermo.
Naucrates serratus Swainson, loc. cit., 413, Palermo.
Thynnus pompilus Gronow, Cat. Fishes, 1854, 123, Mediterranean;
seas of America and Spain.
Xystophorus Richardson, Voy. *Erebus* and *Terror*, 1844, 52, Palermo.
2165. *Naucrates polysarcus* Fowler.
Pacific coast of Mexico.
Naucrates polysarcus Fowler, Proc. Acad. Nat. Sci. Phila., LVII, 1905,
62, west coast of Mexico.

Genus 741. ELAGATIS Bennett.

Elagatis Bennett, Narrative of Whaling Voyage, II, 1840, 283 (*Seriola bipinnulata* Quoy and Gaimard).

Seriolichthys Bleeker, Nat. Tijdschr. Neder.-Indie, VI, 1854, 196 (*Seriola bipinnulata* Quoy and Gaimard).

Decaptus Poey, Memorias, II, 1861, 391 (*Seriola pinnulata* Poey).

2166. *Elagatis bipinnulatus* (Quoy and Gaimard). Runner; Yellowtail; Skipjack; Shoemaker.

Tropical seas; West Indies; Long Island; Hawaii.

Seriola bipinnulata Quoy and Gaimard, Voy. *Uranie*, Zool., I, 1824, 363, pl. 61, fig. 3, Keeling Islands.

Seriola pinnulata Poey, Memorias, II, 1861, 233, Habana, Cuba.

Genus 742. SERIOLA Cuvier.

Seriola Cuvier, Règne Animal, ed. 2, II, 1829, 205 (*Caranx dumerili* Risso).

Micropteryx Agassiz, Pisc. Brasil., 1829, 102, type (not named) *Seriola dumerili* Cuvier, substitute for *Seriola*, used in botany.

Zonichthys Swainson, Nat. Hist. Fishes, Amphib., etc., II, 1839, 248 (*Scomber fasciatus* Bloch).

Halatractus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 442 (*Seriola dumerili*, substitute for *Seriola*, used in botany).

Lepidomegas Thominot, Bull. Soc. Philom. Paris, ser. 7, IV, 1880, 173 (*L. muelleri* Thominot).

2167. *Seriola dorsalis* (Gill). Yellowtail; White salmon.

Pacific coast of America from Monterey southward to Mazatlan; abundant about the Santa Barbara Islands.

Halatractus dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 84, Cape San Lucas.

2168. *Seriola zonata* (Mitchill). Rudderfish; Shark pilot; Pilotfish; Banded rudderfish; Jackfish; Banded mackerel.

Atlantic coast of the United States from Cape Cod to Cape Hatteras. *Scomber zonatus* Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 427, New York Bay.

2169. *Seriola carolinensis* Holbrook.

Gulf of Mexico, and on Atlantic coast north to Cape Hatteras.

Seriola carolinensis Holbrook, Ichthyol. South Carolina, 1855, 70, Charleston, S. C.

Seriola stearnsi Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 48, Pensacola, Fla.

2170. *Seriola lalandi* Cuvier and Valenciennes. Great amberfish; Amber jack; Coronado; Jenny Lind.

New Jersey to Brazil; occasionally to New York.

Seriola lalandi Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 155 (208), Brazil.

Seriola gigas Poey, Memorias, II, 1861, 227, Cuba.

2171. *Seriola dumerili* (Risso). Amber jack; Coronado.

Mediterranean to West Indies, north to Key West and Pensacola.

Caranx dumerili Risso, Ichthyol. Nice, 1810, 175, pl. 6, fig. 20, Nice.

Trachurus alicolus Rafinesque, Caratteri, 1810, 42, Pl. XI, fig. 2, Sicily.

Trachurus fasciatus Rafinesque, Indice, No. 108, 21 and 53, Sicily; not *Scomber fasciatus* of Bloch.

Seriola proxima Poey, Memorias, II, 1861, 229, Cuba.

Genus 743. ZONICHTHYS Swainson.

Zonichthys Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 248 (*Scomber fasciatus* Bloch).

2172. *Zonichthys mazatlanus* (Steindachner).

West coast of Mexico, Mazatlan.

Seriola mazatlanana Steindachner, Ichth. Beitr., V, 1876, 8, Mazatlan, Mexico.

2173. *Zonichthys fasciatus* (Bloch). Madregal; Bonito.

West Indies, north to Charleston, S. C.

Scomber fasciatus Bloch, Nat. Ausl. Fische, VII, 1793, 73, pl. 341, no locality.

Seriola semicoronata Poey, Memorias, II, 1861, 232, Habana.

2174. *Zonichthys rivolianus* Cuvier and Valenciennes.
Mediterranean to Brazil, West Indies, and South Carolina; Florida coast.
Seriola rivoliana Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 154 (207), the Greek Archipelago.
Seriola boscii Cuvier and Valenciennes, loc. cit., 156 (208), waters of Carolina.
Seriola bonariensis Cuvier and Valenciennes, loc. cit., 157 (211), Buenos Aires.
Seriola coronata Poey, Memorias, II, 1861, 232, Cuba.
2175. *Zonichthys falcatus* (Cuvier and Valenciennes). *Madregal*; *Rock salmon*.
West Indies, north to Florida and the Carolinas.
Seriola falcata Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 156 (210), Gulf of Mexico.
Seriola dubia Lowe, Proc. Zool. Soc. London, VII, 1839, 80, Madeira.
Seriola declivis Poey, Memorias, II, 1861, 230, Habana.
Seriola ligulata Poey, loc. cit., 231, Cuba.

Family 181. NEMATISTIIDÆ. Peacockfishes; Papagallos

- Genus 744. NEMATISTIUS Gill.
Nematistius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 258 (*N. pectoralis* Gill).
Seriolophus Guichenot, Mém. Soc. Nat. Sci. Cherbourg, XIII, 1868, 90 (*Seriolophus carangoides* Guichenot).
2176. *Nematistius pectoralis* Gill. *Pez de gallo*; *Papagallo*; *Roosterfish*.
Gulf of California to Panama; generally common.
Nematistius pectoralis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 259, Cape San Lucas.
Seriolophus carangoides Guichenot, Mém. Soc. Sci. Nat. Cherbourg, XIII, 1868, 90, locality unknown.

Family 182. POMATOMIDÆ. Bluefishes

- Genus 745. POMATOMUS Lacépède. *Bluefishes*.
Pomatomus Lacépède, Hist. Nat. Poiss., IV, 1802, 436 (*P. skib* Lacépède).
Lopharis Rafinesque, Caratteri, 1810, 52 (*Perca lophar* Forskål).
Gonenion Rafinesque, loc. cit., 53 (*G. serra* Rafinesque).
Temnodon Cuvier, Règne Animal, ed. 1, II, 1817, 346 (*Cheilodipterus heptacanthus* Lacépède).
Sypterus Eichwald, Fauna Caspio-Caucas., 1841 (*Perca lophar* Forskål).
Chromis Gronow, Cat. Fishes, 1854, 149 (*C. epicurorum* Gronow = *Gasterosteus saltatrix* Linnæus); name preoccupied.
Sparactodon Rochebrune, Bull. Soc. Philom. Paris, ser. 7, IV, 1880, 162 (*S. nalnal* Rochebrune).
2177. *Pomatomus saltatrix* (Linnæus). *Bluefish*; *Snap mackerel*; *Skipjack*; *Patback*; *Snapping mackerel*; *Tailor*; *Snapper*; *Horse mackerel*; *Greenfish*; *Skip mackerel*.
Atlantic coast of United States; eastern part of the Mediterranean and South to Australia and Madagascar; locally and irregularly abundant.
Perca saltatrix Linnæus, Syst. Nat., ed. X, I, 1758, 293, Carolinas.
Perca lophar Forskål, Descr. Anim., 1775, 38, Constantinople.
Cheilodipterus heptacanthus Lacépède, Hist. Nat. Poiss., III, 1802, 542, Fort Dauphin, Madagascar.
Pomatomus skib Lacépède, loc. cit., IV, 1802, 436, Carolinas.
Lopharis mediterraneus Rafinesque, Indice, 1810, 17, after Forskål.
Gonenion serra Rafinesque, Caratteri, 1810, 53, Sicily.
Chromis epicurorum Gronow, Cat., ed. Gray, 1854, 149, Carolinas.
Sparactodon nalnal De Rochebrune, Bull. Soc. Philom. Paris, 1880, 159, Senegambia.

Family 183. RACHYCENTRIDÆ. The Sergeantfishes

Genus 746. RACHYCENTRON Kaup. Crab-eaters.

Rachycentron Kaup, Isis, XIX, 1826, col. 89 (*R. typus* Kaup).

Elacate Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 328 (*E. malabarica* Cuvier and Valenciennes).

Meladerma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 243 (*M. nigerrima* Swainson = *Elacate pondicerriana* Cuvier and Valenciennes).

2178. *Rachycentron canadus* (Linnæus). Sergeantfish; Crab-eater; Bonito; Cobia.

In all warm seas; Atlantic coast north to Cape Cod; also in Japan and the East Indies, if all members of the genus belong to one species.

Gasterosteus canadus Linnæus, Syst. Nat., ed. XII, 1766, 491, Carolinas.

Centronotus gardenii Lacépède, Hist. Nat. Poiss., III, 1802, 357, Carolinas.

Centronotus spinosus Mitchill, Trans. Lit. and Phil. Soc., I, 1815, 490, New York.

?*Elacate pondicerriana* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 241 (329), Pondicherry.

?*Elacate motta* Cuvier and Valenciennes, loc. cit., 244 (332), Orixá.

?*Elacate malabarica* Cuvier and Valenciennes, loc. cit., 244 (332), Malabar.

Elacate atlantica Cuvier and Valenciennes, loc. cit., 245 (334), Brazil.

?*Elacate bivittata* Cuvier and Valenciennes, loc. cit., 248 (338), Molucca.

Elacata falcipinnis Gosse, Nat. Sojourn Jamaica, 1851, 208, Jamaica.

Family 184. BATHYCLUPEIDÆ

Genus 747. BATHYCLUPEA Alcock.

Bathyclupea Alcock, Ann. Mag. Nat. Hist., VIII, 1891, 130 (*B. hoskynii* Alcock).

2179. *Bathyclupea argentea* Goode and Bean.

West Indies, in deep water.

Bathyclupea argentea Goode and Bean, Oceanic Ichth., 1895, 190, off Nevis Island, West Indies, at Blake station 37 in 365 fathoms.

Family 185. PERCIDÆ. Perches

Genus 748. PERCA Linnæus. River perches.

Perca Linnæus, Syst. Nat., ed. X, 1758, 289 (*P. fluviatilis* Linnæus).

Epitrachys Schulze, Jahrsber. Naturw. Ver. Magdeburg, 1889, 209 (*Perca fluviatilis* Linnæus).

2180. *Perca flavescens* (Mitchill). Yellow perch; American perch; Ringed perch; Raccoon perch; Yellow Ned; River perch; Lake perch.

Fresh waters of the eastern United States, chiefly northward and eastward; abundant in the Great Lakes and in coastwise streams from Nova Scotia to North Carolina; common in the tributaries of the upper Mississippi, especially in lakes of Indiana, Michigan, Wisconsin, Iowa, and Minnesota; unknown from central Ohio southward; not known from the Ohio River or the lower Missouri.

Perca americana Schranck, Abh. Privatges. Oberdeutschland, I, 1792, 100, America; name preoccupied in Morone.

Morone flavescens Mitchill, Rept. Fish. N. Y., 1814, 18, near New York City.

Centropomus luteus Rafinesque, Précis des Découvertes Somnologiques, 1814, 19, Pennsylvania.

Perca notata Rafinesque, Amer. Month. Mag., II, 1818, 205, Lake Erie.

Perca serrato-granulata Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 34 (48), New York.

Perca granulata Cuvier and Valenciennes, loc. cit., 35 (48), pl. 9, New York.

Perca acuta Cuvier and Valenciennes, loc. cit., 36 (49), pl. 10, Lake Ontario.

Perca gracilis Cuvier and Valenciennes, loc. cit., 36 (50), Skaneateles Lake, N. Y.

Genus 749. *STIZOSTEDION*⁵¹ Rafinesque. *American pike perches*.
Stizostedion Rafinesque, Ichth. Ohiensis, 1820, 23 (*Perca salmonea*
 Rafinesque=*Perca vitrea* Mitchell).
Stizostethium, attempted correction.

2181. *Stizostedion vitreum* (Mitchill). *Walleye; Wall-eyed pike; Pike perch; Dory; Glass-eye; Yellow pike; Blue pike; Jack salmon; White-eye; Spike* (small specimens about 8 inches long, at Maumee Bay, Sandusky Bay, Port Clinton, etc.); *Pickereel; River trout*.

Great Lakes region, upper Mississippi, north to Assiniboia; east to Vermont and Pennsylvania; south to Georgia and Alabama; especially common northward.

Perca vitrea Mitchell, Am. Month. Mag., II, 1818, 247, Cayuga Lake, N. Y.

Lucioperca americana Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 90 (122), pl. 16, New York.

Perca salmonea Rafinesque, Amer. Month. Mag. III, 1818, 354, Ohio River.

2182. *Stizostedion glaucum* Hubbs. *Blue pike*.

Great Lake region.

Stizostedion glaucum Hubbs, Univ. Mich. Mus. Zool., Misc. Publ. No. 15, July 7, 1926, 58, Pl. IV, fig. 1, Lake Erie.

Genus 750. *CYNOPERCA* Gill and Jordan.

Cynoperca Gill and Jordan, Bull. U. S. Nat. Mus., X, 1877, 44 (*Lucioperca canadensis* C. H. Smith, in Griffith's edition of Cuvier's Règne Animal).

2183. *Cynoperca grisea* (DeKay). *Sauger; Sand pike; Gray pike; Pickering*. Great Lakes region and westward to Montana, Tennessee, and Arkansas; the common species which varies northward into the next.

Lucioperca grisea DeKay, New York Fauna: Fishes, 1842, 19, New York.

Lucioperca borea Girard, Proc. Acad. Nat. Sci. Phila., 1857, 201, Fort Sarpi, Nebr.

Lucioperca pepinus Estes, in Hallock's Sportsman's Gazetteer, 1827, 322, Lake Pepin.

2184. *Cynoperca canadensis* (Smith). *Sauger; Sand pike; Gray pike*.

Northeastern North America, from Vermont to the Great Lakes.

Lucioperca canadensis C. H. Smith, in Griffith's edition of Cuvier's Règne Anim., Fishes, 1836, 275, Canada.

Family 186. ETHEOSTOMIDÆ Darters

We begin this series with the species most nearly related to the *Percidæ*, from which the darters are apparently descended. *Percina* is the most primitive genus, and in most respects the highest, the other forms being progressively specialized to their life in swift brooks. From *Percina* two lines diverge in different directions; the allies of *Crystallaria* and *Vigil* to *Ammocrypta* toward a quiescent life, buried in sand; the other through *Pacilichthys*, *Nothonotus* and *Oligocephalus* for life in weedy brooks, culminating in *Microperca* and *Alvarius*, the lowest forms.

Genus 751. *PERCINA* Haldeman. *Log perches*.

Percina Haldeman, Jour. Acad. Nat. Sci. Phila., VIII, 1842, 330 (*P. nebulosa* Haldeman=*Sciæna caprodes* Rafinesque).

Pileoma DeKay, New York Fauna: Fishes, 1842, 16 (*P. semifasciata* DeKay=*Etheostoma caprodes* Rafinesque).

⁵¹ The European genus *Sander* Oken (*Lucioperca* Cuvier and Valenciennes) differs from *Stizostedion* in the close-set ventrals and the less close approximation of the anal spines.

- 2185 *Percina caprodes* (Rafinesque).** *Log perch; Rockfish; Hogmolly; Hogfish.*
Great Lakes and streams of the South and West from Quebec to Lake Superior, and Iowa.
Sciaena caprodes Rafinesque, Amer. Month. Mag., Vol. II, 1818, 354, Ohio River.
Perca (Percina) nebulosa Haldeman, Jour. Acad. Nat. Sci. Phila., VIII, 1842, 330, Susquehanna River.
Pileoma semifasciatum DeKay, New York Fauna: Fishes, 1842, 16, pl. 50, fig. 162, Lake Champlain, Westport, N. Y.
Percina bimaculata Haldeman, Proc. Bost. Soc. Nat. Hist., 1844, 157, Susquehanna River.
- 2186. *Percina carbonaria* (Baird and Girard).**
Streams of Mississippi to the Rio Grande.
Pileoma carbonaria Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 387, Rio Salada; Rio Medina; San Pedro Creek, Tex.
- 2187. *Percina zebra* (Agassiz).** *Manitou darter.*
Lakes of Michigan, northern Indiana, Wisconsin, and northward to Lake Superior; Cayuga Lake Basin. Probably varying into *P. caprodes*.
Pileoma zebra Agassiz, Lake Superior, 1850, 308, Lake Superior.
Percina manitou Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 53, Lake Manitou, Ind.
- 2188. *Percina rex* (Jordan and Evermann).**
Roanoke River, Va. One of the largest and most imposing of the darters.
Etheostoma rex Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 357, Pl. XLV, fig. 9, Roanoke River near Roanoke, Va.
- Genus 752. *HADROPTERUS* Agassiz.** *Black-sided darters.*
Hadropterus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305 (*H. nigrofasciatus* Agassiz).
- 2189. *Hadropterus nigrofasciatus* Agassiz.** *Crawl-a-bottom.*
South Carolina to Louisiana.
Hadropterus nigrofasciatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305, Mobile, Ala.
Alvordius spillmani Hay, Proc. U. S. Nat. Mus., III, 1880, 491, Chickasawha River, Miss.
- Genus 753. *ALVORDIUS* Girard.**
Alvordius Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 68 (*A. maculatus* Girard).
- 2190. *Alvordius maculatus* Girard.** *Black-sided darter.*
Great Lakes region to the middle Missouri and north to Minnesota, southward through Missouri, Indiana, and Kentucky to Arkansas; especially common in the Ohio Valley.
Alvordius maculatus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 68, Fort Gratiot, Mich.
Alvordius aspro Cope and Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 51, White River, Indianapolis, Ind.; substitute for *Etheostoma blennioides* of Kirtland, not of Rafinesque; perhaps distinct from *A. maculatus* which, if correctly described, has not been found later.
- 2191. *Alvordius guntheri* (Eigenmann and Eigenmann).** *Günther's darter.*
Winnipeg south to Iowa.
Etheostoma guntheri Eigenmann and Eigenmann, Amer. Nat., November, 1892, 962, Souris River, Winnipeg.
- 2192. *Alvordius peltatus* (Stauffer).** *Shielded darter.*
Southeastern Pennsylvania, southward to South Carolina in coastwise streams.
Hadropterus maculatus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 100, tributary of Potomac River, Md.; name preoccupied.
Etheostoma peltatum Stauffer, in Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 233, Conestoga Creek, near Lancaster, Pa.
Etheostoma nevadense Cope, Proc. Amer. Phil. Soc., XI, 1870, 261, falls of Neuse River, N. C.
Alvordius crassus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 12, near Greenville, S. C.

2193. *Alvordius sellaris* (Radeliffe and Welch). *Maryland darter*.
Streams of Maryland.
Hadropterus sellaris Radeliffe and Welch, Bull. U. S. Fish Com., XXXII, 1912, 31, Swan Creek, Havre de Grace, Md.
2194. *Alvordius ouachitæ* (Jordan and Gilbert). *Ouachita darter*.
Southern Indiana, western Kentucky, southwest to Arkansas, not rare; known from Patoka River, Ind.; lower Green and Obion Rivers, Kentucky and Tennessee; Saline River, Ark.
Etheostoma (*Hadropterus*) *ouachitæ* Jordan and Gilbert, Proc. U. S. Nat. Mus., X, 1887, 49, Saline River, Benton, Ark., a tributary of the Washita.
2195. *Alvordius maxinkuckiensis* (Evermann). *Maxinkuckee darter*.
Lake Maxinkuckee, Ind.
Hadropterus maxinkuckiensis Evermann, Rept. U. S. Fish Com., XXV, 1899 (1900), 366, pl. 17, fig. 2, Aubeenaubee Creek, an eastern tributary to Lake Maxinkuckee, Ind.
2196. *Alvordius evermanni* (Moenkhaus). *Evermann's darter*.
Lake Tippecanoe, Ind.
Hadropterus evermanni Moenkhaus, Bull. U. S. Fish Com., XXII, 1902 (1904), 397, with figure on p. 398, Tippecanoe Lake, Ind.
2197. *Alvordius roanoka* (Jordan and Jenkins).
Roanoke River, Va.
Hadropterus roanoka Jordan and Jenkins, Proc. U. S. Nat. Mus., XI, 1888, 358, Roanoke River at Roanoke, Salem, and Allegheny Springs, Va.
2198. *Alvordius macrocephalus* (Cope). *Big-headed darter*.
West slope of the Alleghenies from Pennsylvania southward in mountain streams; known from Youghiogheny River, Pa.; North Fork of Holston River, Saltville, Va.; Middle Fork of Holston River, Glade Spring, Va.; Big Sandy, upper Green, and Cumberland Rivers, Ky.; Clinch River, Tenn.
Etheostoma macrocephalum Cope, Trans. Amer. Phil. Soc., XIII, 1869, 400, Youghiogheny River, Pa.
2199. *Alvordius phoxocephalus* (Nelson).
Ohio to Iowa, south to Kentucky and Oklahoma, in sandy rivers; locally common.
Etheostoma phoxocephalum Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 35, Illinois River and its tributaries.
- Genus 754. *SERRARIA* Gilbert.
Serraria Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 205 (*Hadropterus scierus* Swain).
2200. *Serraria sciera* (Swain). Northern Indiana to Tennessee and Texas.
Hadropterus scierus Swain, Proc. U. S. Nat. Mus., VI, 1883, 252, Bean Blossom Creek, Monroe County, Ind.
2201. *Serraria serrula* (Jordan and Gilbert).
From southern Arkansas southward through eastern Texas.
Hadropterus scierus serrula Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 16, Red River, Fulton, Ark.
- Genus 755. *ERICOSMA* Jordan and Copeland.
Ericosma Jordan and Copeland, Bull. U. S. Nat. Mus., X, 1877, 8 (*Alvordius evides* Jordan and Copeland).
2202. *Ericosma evides* (Jordan and Copeland).
Indiana in the Wabash Basin, west to Cedar River, Iowa, and southward in Arkansas, Kentucky, and Tennessee; French Broad River and the Ozark region.
Alvordius evides Jordan and Copeland, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 51, White River near Indianapolis, Ind.
- Genus 756. *HYPOHOMUS* Cope.
Hypohomus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 449 (*Coltogaaster aurantiacus* Cope).

- 2203. *Hypohomus aurantiacus* (Cope).**
Upper Tennessee Basin; North Fork of Holston, Clinch, Watauga, and French Broad Rivers.
Cottogaster aurantiacus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1869, 211, North Fork of Holston River, Saltville, Va.
- 2204. *Hypohomus cymatotænia* (Gilbert and Meek).**
Western Kentucky and southern Missouri.
Etheostoma (Hadropterus) cymatotænia Gilbert and Meek, Proc. U. S. Nat. Mus., X, 1887, 51, Niangua River and Osage Fork of the Gasconade near Marshfield, Mo.; Sac River near Greenfield, Mo.
- 2205. *Hypohomus nianguæ* (Gilbert and Meek).** *Niangua darter.*
Niangua River, Ozark region of Missouri.
Etheostoma (Hadropterus) nianguæ Gilbert and Meek, Proc. U. S. Nat. Mus., X, 1887, 52, Niangua River near Marshfield, Mo.
- 2206. *Hypohomus spilotos* (Gilbert).**
Kentucky River.
Etheostoma nianguæ spilotos Gilbert, Proc. U. S. Nat. Mus., X, 1887, 53, Sturgeon Creek, a tributary of Kentucky River near Travelers Rest, Owsley County, Ky.
- Genus 757. SWAINIA** Jordan and Evermann.
Swainia Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1040 (*Etheostoma (Hadropterus) squamatus* Gilbert and Swain).
- 2207. *Swainia squamata* (Gilbert and Swain).**
Upper Tennessee River Basin; known from Watauga and French Broad Rivers.
Etheostoma (Hadropterus) squamatus Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 50, French Broad River at mouth of Wolf Creek, Tenn.
- Genus 758. COTTOGASTER** Putnam.
Cottogaster Putnam, Bull. Mus. Comp. Zool., I, 1863, 4 (*Bolcosoma tessellatum* Thompson; not of DeKay=*Cottogaster putnami* Jordan and Gilbert).
Rheocrypta Jordan, Bull. U. S. Nat. Mus., X, 1877, 9 (*R. copelandi* Jordan).
- 2208. *Cottogaster copelandi* (Jordan).** *Copeland's darter.*
Great Lakes region, south to the Black Warrior, westward to Missouri and through the Ozark region, where it is abundant; also about Indianapolis in clear brooks.
Rheocrypta copelandi Jordan, Bull. U. S. Nat. Mus., X, 1877, 9, White River near Indianapolis, Ind.
- 2209. *Cottogaster putnami* (Jordan and Gilbert).** *Putnam's darter.*
Lake Champlain.
Cottogaster putnami Jordan and Gilbert, Synopsis, 1883, 498, Westport Brook, Lake Champlain, N. Y. Probably intergrades with *C. copelandi*.
- 2210. *Cottogaster uranidea* (Jordan and Gilbert).**
Lower Wabash Basin to southern Missouri, south through Arkansas and Alabama to the Escambia; mostly in sandy lowland streams.
Etheostoma (Cottogaster) uranidea Jordan and Gilbert, Proc. U. S. Nat. Mus., X, 1887, 48, Washita River, Arkadelphia, Ark.
- Genus 759. IMOSTOMA** Jordan.
Imostoma Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 49 (*Hadropterus shumardi* Girard).
- 2211. *Imostoma shumardi* (Girard).** *Shumard's darter.*
Michigan, Ohio, Indiana, and Illinois southward to Kentucky and Arkansas.
Hadropterus shumardi Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 100, Arkansas River near Fort Smith, Ark.
Etheostoma wrighti McCormick, Bull. Oberlin College Lab., No. 2, 1891, 30, near Oberlin, Ohio.

2212. *Imostoma gilberti* (Evermann and Thoburn). *Gilbert's darter*.
Clinch River, Tenn.
Ulocentra gilberti Evermann and Thoburn in Jordan and Evermann,
Fishes North and Mid. Amer., 1896, 1049, Clinch River at Walker's
ford near Tazewell, Tenn.
2213. *Imostoma meadiæ* (Jordan and Evermann). *Meadie's darter*.
Indian Creek, Powell River basin, eastern Tennessee.
Ulocentra meadiæ Jordan and Evermann, Fishes North and Mid. Amer.,
Nov. 26, 1898, 2852, Indian Creek, Cumberland Gap, Tenn.
2214. *Imostoma longimane* (Jordan).
Basin of James River, Va.
Etheostoma longimana Jordan, Proc. Acad. Nat. Sci. Phila., XL, 1888,
179, tributary of James River, Va.
2215. *Imostoma cheneyi* (Evermann and Kendall). *Cheney's darter*.
Racket River near Norfolk, St. Lawrence County, N. Y.
Cottoaster cheneyi Evermann and Kendall, Bull. U. S. Fish Com.,
XVII, 1897 (Feb. 9, 1898), 129, pl. 8, fig. 8, Racket River, near
Norfolk, N. Y.
2216. *Imostoma podostemone* (Jordan and Jenkins).
Roanoke River Basin, Va.
Etheostoma podostemone Jordan and Jenkins, Proc. U. S. Nat. Mus.,
XI, 1888, 359, Roanoke River, at Roanoke, Salem, and Allegheny
Springs, Va.
- Genus 760. **ETHEOSTOMA** Rafinesque.
Etheostoma Rafinesque, Jour. Phys., etc., 1819, 419 (*E. blennioides*
Rafinesque, as restricted by code).
Dipsion Rafinesque, Ichth. Ohiensis, 1820, 37 (*Etheostoma blennioides*
Rafinesque).
Hyostoma Agassiz, Amer. Jour. Sci., XVII, 1854, 305 (*H. newmani*
Agassiz=*Etheostoma blennioides* Rafinesque).
2217. **Etheostoma blennioides** Rafinesque. *Green-sided darter*.
New York to South Dakota and Kansas, south to lower Alabama
Basin; a beautiful fish.
Etheostoma blennioides Rafinesque, Jour. de Physique, LXXXVIII,
1819, 419, Ohio River.
Hyostoma newmani Agassiz, Amer. Jour. Sci. and Arts, X, VII, 1854,
305, vicinity of Huntsville, Ala.
Pileoma cymatogramma Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860,
327, no locality.
Hyostoma blennioperca Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868,
215, tributaries of Kanawha and Holston Rivers.
- Genus 761. **ULOCENTRA** Jordan.
Ulocentra Jordan, Man. Vertebrates, ed. 2, 1878, 223 (*Arlina atripinnis*
Jordan=*Hyostoma simotera* Cope).
2218. **Ulocentra simotera** (Cope).
West Virginia, eastern Kentucky, and Tennessee, in the basins of the
Green, Cumberland, and Tennessee Rivers, southward through
Alabama to the Escambia River.
Hyostoma simotera Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 215,
Holston River and its tributaries, near Nashville, Tenn.
Arlina atripinnis Jordan, Bull. U. S. Nat. Mus., X, 1877, 10, tributary
of Cumberland River near Nashville, Tenn.
?*Etheostoma duryi* Henshall, Jour. Cincinnati Soc. Hist., 1889, 32,
tributary of Tennessee River.
2219. **Ulocentra histrio** (Jordan and Gilbert).
Southern Indiana, southwestward to Arkansas; known from the lower
Wabash and tributaries; also from Green River, Ky., and Black,
Poteau, and Washita Rivers, Ark.
Etheostoma (Ulocentra) histrio Jordan and Gilbert, Proc. U. S. Nat.
Mus., X, 1887, 47, Poteau River near Hackett City, Ark.; Saline
River at Benton, and Washita River at Arkadelphia, Ark.

2220. *Ulocentra blennius* (Gilbert and Swain).
Northern Alabama, in streams tributary to the Tennessee River.
Etheostoma (Rhothæca) blennius Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 55, Cox Creek and Shoal Creek, tributary to Tennessee River, Florence, Ala.
2221. *Ulocentra verecunda* (Jordan and Evermann).
Tributaries of Holston River, Va.; rare.
Etheostoma verecundum Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 360, Pl. XLV, fig. 12, Middle Fork of the Holston River, about 5 miles south of Glade Spring, Va.
2222. *Ulocentra phlox* (Cope).
Trinity River, Tex.
Boleosoma phlox Cope, Bull. U. S. Nat. Mus., XVII, 1880, 30, Trinity River at Fort Worth, Tex.
2223. *Ulocentra stigmæa* (Jordan). *Speck*.
Tennessee and Arkansas to Georgia and Louisiana.
Boleosoma stigmæum Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876 (1877), 311, small tributaries of Etowah and Oostanaula Rivers near Rome, Ga.
Pæciliichthys sacatilis Hay, Proc. U. S. Nat. Mus., III, 1880, 495, stream at Enterprise, Miss.
- Genus 762. **BOLEOSOMA** DeKay. *Tessellated darters*.
Boleosoma DeKay, New York Fauna: Fishes, 1842, 20 (*B. tessellatum* DeKay = *Etheostoma olmstedii* Storer).
Arlina Girard, Proc. Acad. Nat. Sci. Phila., 1859, 64 (*A. effulgens* Girard).
Estrella Girard, loc. cit., 65 (*E. atromaculata* Girard).
2224. *Boleosoma olmstedii* (Storer). *Tessellated darter*; *Grand Oranchee darter*; *Sand darter*.
Lake Ontario to Massachusetts and south to North Carolina, east of the Alleghenies.
Etheostoma olmstedii Storer, Jour., Bost. Soc. Nat. Hist., IV, 1842, 61, pl. 5, fig. 2, Hartford, Conn.
Perca minima Haldeman, Jour. Acad. Nat. Sci. Phila., VIII, 1842, 330, Susquehanna River.
Boleosoma tassellatum DeKay, New York Fauna: Fishes, 1842, 20, pl. 20, fig. 57; New York fresh-water streams.
Estrella atromaculata Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 66, Potomac River, vicinity of Washington, D. C.
? *Boleosoma æsopus* Cope, Proc. Amer. Phil. Soc., XI, 1870, 270, Loyalsoc Creek, Pa.
2225. *Boleosoma nigrum* (Rafinesque). *Johnny darter*; *Blind simon*.
Eastern United States, Ohio Valley, Great Lakes region, and upper Mississippi, west to Colorado and north to Manitoba.
Etheostoma nigra Rafinesque, Ichth. Ohiensis, 1820, 37, Green River, Ky.
Boleosoma maculatum Agassiz, Lake Superior, 1850, 305, Lake Superior.
Boleosoma olmstedii brevipinnis Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 214, Kiskiminitas River, Pa.
Pæciliichthys beani Jordan, Proc. U. S. Nat. Mus., VII, 1884, 479, Tabo Creek, Mo.
2226. *Boleosoma effulgens* (Girard). *Tassellated darter*.
Maryland to North Carolina.
Arlina effulgens Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 65, brooks and streams flowing into Potomac River.
2227. *Boleosoma mesæum* (Cope).
Platte River near Fort Kearney, Nebr.
Pæciliichthys mesæus Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 232, Platte River near Fort Kearney, Nebr.
2228. *Boleosoma maculaticeps* Cope.
Upper waters of Catawba River, N. C.
Boleosoma maculaticeps Cope, Proc. Amer. Phil. Soc., XI, 1870, 269, upper waters of Catawba River, N. C.

2229. *Boleosoma vexillare* Jordan.

Tributaries of the James, Roanoke, and Rappahannock Rivers.

Boleosoma vexillare Jordan, Proc. U. S. Nat. Mus., II, 1879, 235, Rappahannock River at Warrenton, Va.

2230. *Boleosoma susanæ* Jordan and Swain. *Susan's darter*.

Basin of upper Cumberland River, Ky.

Boleosoma susanæ Jordan and Swain, Proc. U. S. Nat. Mus., VI., 1883, 249, Wolf Creek and other tributaries of the Clear Fork of Cumberland River near Pleasant View, Whitley County, Ky.

Genus 763. *VAILLANTIA* Jordan.

Vaillantia Jordan, Bull. U. S. Nat. Mus., XII, 1878, 89 (*Boleosoma camurum* Forbes).

2231. *Vaillantia camura* (Forbes).

Indiana to Iowa and Mississippi, southwest to Houston, Tex.

Boleosoma camurum Forbes, Bull. Ill. Lab. Nat. Hist., I, 1878, 40, Cache River and Clear Creek, Union County, Johnston County, and Pekin, Ill.; name preoccupied in *Nothonotus* but not in *Boleosoma* or *Vaillantia*,

Vaillantia chlorosoma Hay, Proc. U. S. Nat. Mus., III, 1880, 495, Mississippi.

Genus 764. *CRYSTALLARIA* Jordan and Gilbert.

Crystallaria Jordan and Gilbert, in Jordan, Cat. Fishes N. Amer., 1885, 78 (*Pleurolepis asprellus* Jordan).

2232. *Crystallaria asprella* (Jordan).

Southern Indiana and Illinois to Arkansas and Alabama, chiefly in the larger, clearer streams. Recorded from Ohio River at Rising Sun, Ind.; Wabash River at New Harmony, Vincennes, and Terre Haute; Green River, Ky.; Choctolo Creek, Ala.; and Washita River, Ark.; besides the original locality in Illinois.

Pleurolepis asprellus Jordan, Bull. Ill. Lab. Nat. Hist., I, 1878, No. 2, 38, 1878, rocky tributary of Mississippi River in Hancock County, Ill.

Genus 765. *VIGIL* Jordan.

Pleurolepis (Agassiz) Putnam, Bull. Mus. Comp. Zool., I, 1863, 5 (*Etheostoma pellucidum* (Baird) Agassiz; name preoccupied by Egerton for a genus of fossil fishes.

Vigil Jordan, Proc. Acad. Nat. Sci. Phila., LXX, 1918 (1919), 344 (*Pleurolepis pellucidus* Agassiz).

2233. *Vigil pellucidus* (Baird). *Sand darter*.

Lake Erie to Minnesota, Kentucky, and Texas.

Pleurolepis pellucidus Baird, in Agassiz, Bull. Mus. Comp. Zool., I, 1863, 5, no locality; the specimens from Black River, Ohio, the types of *Etheostoma pellucidum* Baird (MS., 1853).

2234. *Vigil clarus* (Jordan and Meek).

Mississippi Valley; Wabash River, west to central Iowa and Minnesota, and south to Arkansas and northern Texas.

Ammocrypta clara Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 8, Des Moines River, Ottumwa, Iowa.

2235. *Vigil vivax* (Hay).

Mississippi and northwest through Arkansas and south to Texas.

Ammocrypta vivax Hay, Bull. U. S. Fish Com., II, 1882, (1883), 58, Pearl River, Jackson, Miss.

Genus 766. *IOA* Jordan and Brayton.

Ioa Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 88 (*Paclichthys vitreus* Cope).

2236. *Ioa vitrea* (Cope).

Southeastern Virginia and western North Carolina.

Paclichthys vitreus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 263, Walnut Creek, a tributary of Neuse River, Wake County, N. C.

2237. *Ioa vigil* Hay.

Pearl River, Jackson, Miss.

Ioa vigil Hay, Bull. U. S. Fish Com., II, 1882 (1883), 59, Pearl River, Jackson, Miss.

Genus 767. AMMOCRYPTA Jordan. *Sand darters.*

Ammocrypta Jordan, Bull. U. S. Nat. Mus., X, 1877, 5 (*A. beanii* Jordan).

2238. *Ammocrypta beanii* Jordan.

Gulf States, Alabama to Louisiana.

Ammocrypta beanii Jordan, Bull. U. S. Nat. Mus., X, 1877, 5, Notalbany River, Tickfaw, La.

Ammocrypta gelida Hay, Proc. U. S. Nat. Mus., III, 1880, 490, Enterprise, Miss.

Genus 768. PÆCILICHTHYS Agassiz.

Pæcilosoma Agassiz, Lake Superior, 1850, 299 (*Etheostoma variata* Kirtland); name preoccupied.

Pæcilichthys Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305 (*Ethcostoma variata* Kirtland).

2239. *Pæcilichthys variatus* (Kirtland).

Ohio River Basin, from western Pennsylvania to Kentucky; scarce. Long confused with *Oligocephalus cæruleus*.

Etheostoma variata Kirtland, Zoology of Ohio, 1838, 168, 192, Mahoning River, Ohio.

Hadropterus tessellatus Jordan, Bull. U. S. Nat. Mus., X, 1877, 7, Allegheny River, Foxburg, Pa.

Genus 769. NANOSTOMA Putnam.

Nanostoma Putnam, in Jordan, Bull. U. S. Nat. Mus., X, 1877, 6 (*Pæcilichthys zonalis* Cope; not *Nannostomus* Günther).

Rhthæca Jordan, Rept. U. S. Fish Com., XIII, 1885 (1887), 868, p. 80 of reprint issued 1885; substitute for *Nanostoma* Putnam, regarded as preoccupied by *Nannostomus* Günther.

2240. *Nanostoma zonale* (Cope). *Banded darter.*

Mississippi Valley from Ohio and northern Indiana (Kankakee River) west through Iowa and south through Kentucky and Tennessee into Alabama, Louisiana, and Arkansas.

Pæcilichthys zonalis Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 212, Holston River, Va.

Nanostoma vinetipes Jordan, Proc. U. S. Nat. Mus., II, 1879, 236, tributary of Illinois River at Naperville, Ill.

2241. *Nanostoma arcansanum* (Jordan and Gilbert).

Ozark region of Missouri and Arkansas.

Etheostoma zonale arcansanum Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 5, Spring River, Carthage, Mo.; James River, Marshfield, Mo.; Poteau River, Hackett City, Ark.; Washita River, Arkadelphia, Ark., and Saline River, Benton, Ark.

2242. *Nanostoma swannanoa* (Jordan and Evermann).

Upper waters of the Tennessee River.

Etheostoma swannanoa Jordan and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 360, Pl. XLV, fig. 13, South Fork of Holston River, Holstein Mills, Va.; Middle Fork of Holston River, Marion, Va. and South Fork of Swannanoa River, Black Mountain, N. C.

2243. *Nanostoma elegans* (Hay).

Chickasawha River, Miss.

Nanostoma elegans Hay, Proc. U. S. Nat. Mus., III, 1880, 493, shallow rocky branch of Chickasawha River, Enterprise, Miss.

2244. *Nanostoma thalassinum* (Jordan and Brayton).

Santee River Basin in North and South Carolina.

Nothonotus thalassinus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 13, Reedy River, Greenville, S. C.; Catawba River and tributaries in North Carolina; Ennoree River, Chick Springs, S. C.; and Saluda River, Farr's Mill, S. C.

2245. *Nanostoma inscriptum* (Jordan and Brayton).

Oconee River, Ga.

Nothonotus inscriptus Jordan and Brayton, Bull. U. S. Nat. Mus., XII, 1878, 34, Oconee River, Sulphur Springs, Hall County, Ga.

- 2246. *Nanostoma rupestre*** (Gilbert and Swain).
North River, a tributary of Black Warrior River, Ala.
Etheostoma (Rhothaca) rupestre Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 57, North River near Tuscaloosa, Ala.
- Genus 770. NOTHONOTUS** Agassiz.
Nothonotus Agassiz, Bull. Mus. Comp. Zool., I, 1863, 3 (*Etheostoma maculata* Kirtland).
- 2247. *Nothonotus maculatus*** Kirtland.
Ohio and Indiana, southward through Kentucky and Tennessee to northern Alabama, in tributaries of the Wabash, Ohio, Cumberland, and Tennessee Rivers.
Etheostoma maculata Kirtland, Jour. Bost. Soc. Nat. Hist., 1840, 276, Mahoning River, Ohio.
Pæciliichthys sanguifluus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 264, headwaters of the South Fork of the Cumberland River in Tennessee.
- 2248. *Nothonotus camurus*** (Cope). *Blue-breasted darter*.
Lake Erie to Tennessee, in clear, swift waters; not common; the most brilliantly colored of fresh-water fishes.
Pæciliichthys camurus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 265, headwaters of Cumberland River in Tennessee.
- 2249. *Nothonotus vulneratus*** (Cope).
French Broad River.
Pæciliichthys vulneratus Cope, Proc. Amer. Phil. Soc. Phila., XI, 1870, 266, tributary of French Broad River, Warm Springs, N. C.
- 2250. *Nothonotus cinereus*** (Storer).
Tennessee and Cumberland Rivers; Tennessee River at Florence, Ala.; Obeyes River at Olympus, Tenn.; Rock Creek near Whitley Station, Ky.
Etheostoma cinerea Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 49, Florence, Ala.
- 2251. *Nothonotus tessellatus*** (Storer). *Tessellated darter*.
Florence, Ala.
Etheostoma tessellata Storer, Proc., Bost. Soc. Nat. Hist., II, 1845, 48, Tennessee River at Florence, Ala. (Not *Boleosoma tessellatum* DeKay).
- 2252. *Nothonotus rufilineatus*** (Cope).
Upper tributaries of the Tennessee, Cumberland, and Green Rivers.
Pæciliichthys rufilineatus Cope, Proc. Amer. Phil. Soc., XI, 1870, 267, Warm Springs Creek, French Broad River, Madison County, N. C.
- 2253. *Nothonotus jordani*** (Gilbert). *Jordan's darter*.
Tributaries of Coosa River in the Alabama River Basin.
Etheostoma (Nothonotus) jordani Gilbert, Bull. U. S. Fish Com., I, 1889 (1891), 156, pl. 43, fig. 3, Choccolo Creek, Oxford, Ala., and Chestnut Creek, Verbena, Ala.
- Genus 771. RAFINESQUIELLUS** Jordan and Evermann.
Aplesion Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 102 (*A. pottsii* Girard); not of Rafinesque.
Rafinesquiellus Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1082 (*Aplesion pottsii* Girard).
- 2254. *Rafinesquiellus pottsii*** (Girard).
Streams of Chihuahua, Mexico, in Rio Grande Basin.
Aplesion pottsii (misprinted *potsii*) Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 102, tributaries of Chihuahua River, Mexico.
Etheostoma micropterus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 289, Chihuahua, Mexico.
- Genus 772. OLIGOCEPHALUS** Girard.
Oligocephalus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 67 (*Boleosoma lepida* Baird and Girard).

2255. *Oligocephalus cæruleus* (Storer). *Blue darter*; *Rainbow darter*; *Soldierfish*; *Blue johnny*.
Upper Mississippi Valley, from Kentucky to Michigan and east to New York.
Etheostoma cærulea Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 47, Fox River, Ill.
Pæcilosoma erythrogastrum Kirtland, Cleveland Annals Sci., 1854, 4, near Cleveland, Ohio.
Pæcilichthys versicolor Agassiz, Amer. Jour. Sci. Arts, 1854, 304, Quincy, Ill.
Pæcilichthys spectabilis Agassiz, Amer. Jour. Sci. Arts, 1854, 304, Osage River, Mo.
Pæcilosoma transversum Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 326, Lake Superior.
2256. *Oligocephalus lepidus* (Baird and Girard).
Streams of Arkansas, Texas, and Chihuahua; perhaps more than one species included.
Boleosoma lepidus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 388, upper tributaries of the Rio Nueces, Tex.
Oligocephalus grahami Girard, loc. cit., XI, 1859, 102, Devil River, Tex.
Oligocephalus leonensis Girard, loc. cit., 102, Leon River, Tex.
Oligocephalus pulchellus Girard, loc. cit., 102, Gypsum Creek, a tributary to the Canadian River.
2257. *Oligocephalus fricksia* (Hildebrand).
Tributaries of Savannah River.
Etheostoma fricksia Hildebrand, Bull. U. S. Bur. Fish., XXIX, 1924, 7, Brook near Augusta, Ga.
2258. *Oligocephalus iowæ* (Jordan and Meek).
Upper Mississippi Valley, from Iowa, Nebraska, and Colorado north to Assiniboia; abundant and widely distributed.
Etheostoma iowæ Jordan and Meek, Proc. U. S. Nat. Mus., VIII, 1885, 10, Chariton River, Chariton, Iowa.
Etheostoma quappella Eigenmann and Eigenmann, Amer. Nat., 1892, 963, Qu'Apelle River, Manitoba.
2259. *Oligocephalus aubeenaubei* (Evermann). *Aubeenaubee darter*.
Aubeenaubee Creek, an eastern inlet to Lake Maxinkuckee, Ind.
Etheostoma aubeenaubei Evermann, Rept., U. S. Fish Com., XXV, 1899 (1900), 367, Aubeenaubee Creek, Lake Maxinkuckee, Ind.
2260. *Oligocephalus hildebrandti* (Evermann and Clark).
Fletcher Lake, Fulton Co., Ind.
Etheostoma hildebrandti Evermann and Clark, Proc. Biol. Soc. Wash., XXIII, May 4, 1910, 81-88, fig. 1, Fletcher Lake, Fulton Co., Ind.
2261. *Oligocephalus jessieæ* (Jordan and Brayton). *Jessie's darter*.
Southern Illinois to Georgia and Mississippi.
Pæcilichthys jessieæ Jordan and Brayton, in Jordan, Man. Vert., ed. 2, 1878, 227; creek near Ringgold, Ga.
Pæcilichthys asprigenis Forbes, Bull. Ill. Lab. Nat. Hist., I, No. 2, 1877, 41, small creek at Pekin, Ill.
Pæcilichthys swaini Jordan, Proc. U. S. Nat. Mus., VII, 1884, 479, tributary of Pearl River, Monticello, Miss.
2262. *Oligocephalus luteovinctus* (Gilbert and Swain).
Stone River, Tenn.
Etheostoma luteovinctum Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 58, Stone River near Nashville, Tenn.
- Genus 773. *NIVICOLA* Jordan and Evermann.
Nivicola Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1082 (*Pæcilichthys borealis* Jordan).
2263. *Nivicola borealis* (Jordan). *Northern darter*.
St. Lawrence River at Montreal, Canada, and Muskoka Lakes near Lake Huron.
Pæcilichthys borealis Jordan, Proc. U. S. Nat. Mus., VII, 1884, 477, Montreal, Canada.

2264. *Nivicola cragini* (Gilbert). *Cragin's darter*.
Western portion of the Arkansas River Basin, from Garden City, Kans., to Canyon City, Colo.
Etheostoma cragini Gilbert, Bull. Washburn Coll. Lab., March and April, 1885, 99, small stream connecting the "Lake" at Garden City, Kans., with Arkansas River.
2265. *Nivicola punctulata* (Agassiz).
Ozark region of southwestern Missouri.
Pacilichthys punctulatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 304, Osage River, Mo.
2266. *Nivicola pagei* (Meek).
Tributary of Neosho River, Arkansas Basin.
Etheostoma pagei Meek, Amer. Nat., 1894, 957, Neosho, Mo.; only two specimens known.
2267. *Nivicola artesiae* (Hay).
Georgia to central Texas.
Pacilichthys artesiae Hay, Proc. U. S. Nat. Mus., III, 1880, 494, from a small branch of Catawba River, Artesia, Lowndes County, Miss.
2268. *Nivicola lepidogenys* (Evermann and Kendall).
Rio Comal, Tex.
Etheostoma lepidogenys Evermann and Kendall, Bull. U. S. Fish. Com., XII, 1892 (Feb. 6, 1894), 114, pl. 35, fig. 3, Rio Comal, New Braunfels, Tex.
2269. *Nivicola virgata* (Jordan).
Tributaries of Cumberland River in western Kentucky.
Pacilichthys virgatus Jordan, Proc. U. S. Nat. Mus., II, 1879, 236, Rock Castle River, Livingston, Ky.
2270. *Nivicola obeyense* (Kirsch).
Tributaries of the Cumberland River in Clinton County, Ky.
Etheostoma obeyense Kirsch, Bull. U. S. Fish. Com., X, 1890 (1892), 292, with figure; all streams tributary to the Cumberland River in Clinton County, Ky.
2271. *Nivicola tippecanoe* (Jordan and Evermann).
Tippecanoe River, Ind.
Etheostoma tippecanoe Jordan and Evermann, Proc. U. S. Nat. Mus., XIII, 1890, 3 (with a figure of *Etheostoma camurum* by error of printer), Tippecanoe River, Marshland, Ind.
- Genus 774. **CLARICOLA** Jordan and Evermann.
Claricola Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1093 (*Etheostoma juliae* Meek).
2272. *Claricola juliae* (Meek). *Julia's darter*.
Basin of White River, Mo.
Etheostoma juliae Meek, Bull. U. S. Fish. Com., IX, 1889 (1891), 130, pl. 42, fig. 2, James River, near Springfield, Mo.
2273. *Claricola whipplii* (Girard). *Whipple's darter*.
Lower Arkansas Basin; locally abundant in clear tributaries of the Saline, Washita, etc.
Boleichthys whipplii Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103, Coal Creek, Ark.
2274. *Claricola alabamæ* (Gilbert and Swain). *Alabama darter*.
Black Warrior and Big Catawba Rivers, Ala.
Etheostoma whipplei alabamæ Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 62, Black Warrior River near Morris and Tuscaloosa, Ala.
2275. *Claricola squamiceps* (Jordan).
Lower Wabash Valley, Ind., through western Kentucky and Tennessee to Georgia and western Florida. A peculiar species resembling *Catonotus*; perhaps not a *Claricola*.
Etheostoma squamiceps Jordan, Bull. U. S. Nat. Mus., X, 1877, 11, Russellville, Ky.
Etheostoma parvipinne Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 59, small spring branch, tributary to Black Warrior River, Tuscaloosa, Ala.

Genus 775. CATONOTUS Agassiz. *Fantail darters.*

Catonotus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305 (*C. lineolatus* Agassiz).

Etheostoma Rafinesque, as restricted by Cope and Jordan.

Richia Coker, Bull. U. S. Bur. Fish., XLII, 1926, 105, 106; *R. brevispina* Coker, preoccupied by *Richia*, a genus of moths.

Richiella Coker, Copeia, No. 162, March, 1927, 17, substitute for *Richia*, preoccupied.

2276. Catonotus flabellaris (Rafinesque). *Fan-tailed darter.*

New York to Virginia, west to Iowa and south to South Carolina and northern Alabama.

Etheostoma flabellaris Rafinesque, Jour. de Physique, LXXXVIII, 1819, 419, tributaries of Ohio River.

Etheostoma flabellata Rafinesque, Ichth. Ohiensis, 1820, 36, Ohio River.

Etheostoma fontinalis Rafinesque, loc. cit., 85, Ohio River.

Etheostoma linsleyi Storer, Proc. Bost. Soc. Nat. Hist., IV, 1851, 37, Wolcott, Wayne County, N. Y.

Oligocephalus humeralis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 67, James River, Va.

Catonotus fasciatus Girard, loc. cit., 68, Madrid, N. Y., and Grass River.

Catonotus kennicotti Putnam, Bull. Mus. Comp. Zool., I, 1863, 3, southern Illinois.

Richia brevispina Coker, Bull. U. S. Bur. Fish., XLII, March, 1927, 106, fig. 1, Paddys Creek, N. C.

2277. Catonotus flabellare lineolatum (Agassiz).

Minnesota to northern Indiana and northern Missouri.

Catonotus lineolatus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 305, small creek near Quincy, Ill.

2278. Catonotus flabellare cumberlandicum (Jordan and Swain). *Cumberland darter.*

Brooks in Cumberland Mountains tributary to Cumberland River.

Etheostoma cumberlandicum Jordan and Swain, Proc., U. S. Nat. Mus., VI, 1883, 251, small streams of the Cumberland Mountains; Wolf Creek and Briar Creek near Pleasant View, Whitley County, Ky.

Genus 776. TORRENTARIA Jordan and Evermann.

Torrentaria Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1080 (*Etheostoma sagitta* Jordan and Swain).

2279. Torrentaria sagitta (Jordan and Swain).

Cumberland River.

Pacilichthys sagitta Jordan and Swain, Proc. U. S. Nat. Mus., VI, 1883, 250, Wolf Creek, near Pleasant View, Whitley County, Ky.

2280. Torrentaria fasciata (Girard).

Chihuahua River, Mexico, in Rio Grande Basin.

Diplesion fasciatus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 101, Chihuahua River, Mexico; the name preoccupied in *Etheostoma*, not in *Torrentaria*.

Etheostoma australe Jordan, Proc. U. S. Nat. Mus., XI, 1888, 362, Chihuahua River, Mexico; based on the types of *Diplesion fasciatus* Girard.

Etheostoma scovellii Woolman, Amer. Nat., March, 1892, 260, Rio de las Conchas, Chihuahua, Mexico.

Genus 777. PSYCHROMASTER Jordan and Evermann.

Psychromaster Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1099 (*Etheostoma tuscumbia* Gilbert and Swain).

2281. Psychromaster tuscumbia (Gilbert and Swain). *Tuscumbia darter.*

Tennessee River Basin in northern Alabama.

Etheostoma tuscumbia Gilbert and Swain, Proc. U. S. Nat. Mus., X, 1887, 63, stream flowing from the large spring at Tuscumbia, Ala.

Genus 778. BOLEICHTHYS Girard.

Boleichthys Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103 (*Boleichthys exilis* Girard).

- 2282. *Boleichthys fusiformis* (Girard). *Fusiform darter*.**
Massachusetts and south in coastwise streams.
Boleosoma fusiforme Girard, Proc. Bost. Soc. Nat. Hist., IV, 1854, 41,
Charles River, Mass.
Hololepis erochrous Cope, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 233,
Brown's Mill, N. J., opposite Philadelphia.
- 2283. *Boleichthys gracilis* (Girard). *Crimson darter*.**
Southern Indiana to Georgia and Texas; perhaps more than one species
included; perhaps varying into the preceding.
Boleosoma gracile Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103,
Rio Seco and Leona River, Tex.
Pæcilichthys butlerianus Hay, Bull. U. S. Fish Com., II, 1882, 61, Big
Black River near Vaughns station, Yazoo County, Miss.
Pæcilichthys palustris Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 209,
Switz City Swamp, Greene County, Ind.
- 2284. *Boleichthys eos* (Jordan and Copeland).**
New York to Minnesota.
Boleichthys eos Jordan and Copeland, Proc. Acad. Nat. Sci. Phila.,
XXIX, 1877, 46, Wisconsin and Rock Rivers, Wis.; Fox River, Ill.;
northern Indiana.
- 2285. *Boleichthys exilis* Girard.**
Upper Missouri River Basin and Red River of the North.
Boleichthys exilis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 103,
Little Muddy River, a tributary of the upper Missouri.
Boleichthys warreni Girard, loc. cit., 104, Cannonball River.
- Genus 779. *HOLELEPIS* Agassiz.**
Hololepis Agassiz, in Putnam, Bull. Mus. Comp. Zool., I, 1863, 4
(*Etheostoma barrati* Holbrook).
Copelandellus Jordan and Evermann, Fishes North and Mid. Amer.,
1896, 1100 (*Pæcilichthys quiescens* Jordan).
- 2286. *Hololepis barratti* Holbrook.**
Swamps and streams of the lowlands from Virginia to Florida; known
from Blackwater River, Zuni, Va.; Allapaha River, Nashville, Ga.;
and various streams in Florida and South Carolina.
Hololepis barratti Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 56,
South Carolina.
Pæcilichthys quiescens Jordan, Proc. U. S. Nat. Mus., VII, 1884, 478,
tributary of Allapaha River, Nashville, Ga.
- Genus 780. *MICROPERCA* Putnam.**
Microperca Putnam, Bull. Mus. Comp. Zool., I, 1863, 4 (*M. punctulata*
Putnam).
- 2287. *Microperca punctulata* Putnam. *Least darter*.**
Northwestern States; Indiana, Michigan, and Minnesota, south to
Arkansas; rare outside of tributaries of the Great Lakes.
Microperca punctulata Putnam, Bull. Mus. Comp. Zool., I, 1863, 4,
various points in Michigan, Wisconsin, Illinois, and Alabama; those
from Alabama probably *M. praliaris* (Hay); name preoccupied in
Etheostoma.
Etheostoma microperca Jordan and Gilbert, in Jordan's Man. Vert.,
ed. V, 1888, 134, lakes of Laporte County, Ind.; substitute name.
- 2288. *Microperca praliaris* Hay.**
Alabama and Mississippi, in lowland streams and ponds:
Microperca praliaris Hay, Proc. U. S. Nat. Mus., III, 1880, 496, small
branch of the Tuscumbia River at Corinth, Miss.
- Genus 781. *ALVARIUS* Girard.**
Alvarius Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 101 (*A. lateralis*
Girard).
This genus differs from *Microperca* in having but one anal spine. The
fins are short and low and the scales in the type are said to be small.
- 2289. *Alvarius lateralis* Girard.**
Rio Grande about Brazos Santiago, Tex.
Alvarius lateralis Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 101,
mouth of Rio Grande.

2290. *Alvarius fonticola* Jordan and Gilbert.

Arkansas and Texas, in clear rocky streams; known only from Washita River at Arkadelphia; San Marcos River at San Marcos, Tex.; Comal Creek at New Braunfels, Tex.

Alvarius fonticola Jordan and Gilbert, Proc. U. S. Nat. Mus., IX, 1886, 23, San Marcos Spring at San Marcos, Tex.

Family 187. APOGONIDÆ. Cardinal fishes**Genus 782. APOGON Lacépède.**

Amia Gronow, Zoophyl., 1763, 80 (*Apogon moluccensis* Cuvier and Valenciennes); not *Amia* L., nonbinomial.

Apogon Lacépède, Hist. Nat. Poiss., III, 1802, 411 (*A. ruber* Lacépède = *Mullus imberbis* L.).

Ostorhinchus Lacépède, loc. cit., IV, 1803, 23 (*O. fleurieu* Lacépède).

Dipterodon Lacépède, loc. cit., 165 (*D. hexacanthus* Lacépède).

Macrolepis Rafinesque, Analyse de la Nat., 1815, 86; a bare name, no type.

Monoprion Poey, Memorias, II, 1861, 123 (*M. maculatus* Poey).

2291. *Apogon imberbis* (Linnaeus). King of the mullets; *Alfoncino*; *Fucinita*. Mediterranean and neighboring waters; one from Newport, R. I., and one from the island of Fernando de Noronha.

Mullus imberbis Linnaeus, Syst. Nat., ed. X, 1758, 300, Malta; after Artedi.

Apogon ruber Lacépède, Hist. Nat. Poiss., III, 1802, 411, Malta.

Perca pusilla De la Roche, Ann. Mus. Nat. Hist., XIII, 1809, 318, Nice.

Apogon rex-mullorum Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 105 (143), Marseilles, Nice, Genoa, Naples, Palermo.

2292. *Apogon maculatus* (Poey).

Pensacola to Bahia; recorded from as far north as Woods Hole; common on the "snapper banks"; often found in the stomachs of snappers and groupers.

Monoprion maculatus Poey, Memorias, II, 1861, 123, Cuba.

2293. *Apogon pigmentarius* (Poey).

Cuba; common at Habana.

Monoprion pigmentarius Poey, Memorias, II, 1861, 123, Cuba.

2294. *Apogon sellicauda* Evermann and Marsh.

West Indies; Tortugas Archipelago; Porto Rico.

Apogon sellicauda Evermann and Marsh, Fish. Porto Rico, Bull. U. S. Fish Com., XX, 1900, 143, fig. 40, Culebra Island, Porto Rico.

2295. *Apogon americanus* Castelnau.

Brazil, north to the Tortugas.

Apogon americanum Castelnau, Anim. Amer. Sud, Poiss., 1855, 3, pl. III, fig. 2, Bahia.

2296. *Apogon binotatus* (Poey).

Cuba.

Amia binotata Poey, Repertorio, 1867, 234, Cuba.

2297. *Apogon retrosella* (Gill). Cardinal.

Pacific coast of Mexico.

Amia retrosella Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 251, Cape San Lucas.

2298. *Apogon dovii* Günther.

Mazatlan to Panama.

Apogon dovii Günther, Proc. Zool. Soc. Lond., 1861, 371, Panama.

2299. *Apogon atricaudus* (Jordan and McGregor).

Offshore islands, Pacific coast of Mexico.

Apogon atricaudus Jordan and McGregor, Rept. U. S. Fish Com., XXIV, 1898, 277, and in Jordan and Evermann, Fish. North and Mid. Amer., 1898, 2853, Socorro, Clarion, and San Benedicto islands.

2300. *Apogon atrodorsatus* Heller and Snodgrass.

Galapagos Islands.

Apogon atrodorsatus Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 192, Pl. III, Charles Island.

2301. **Apogon guadalupensis** (Osburn and Nichols).
Guadalupe Island, off Lower California.
Amia guadalupensis Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 160, fig. 9, Guadalupe Island.
- Genus 783. **APOGONICHTHYS** Bleeker.
Apogonichthys Bleeker, Naturkundig Tijds. Nederl.-Indie, Floris, VI, 1854, 321 (*A. perdix* Bleeker).
2302. **Apogonichthys alutus** (Jordan and Gilbert).
Snapper banks off Pensacola and Tampa, Fla.; and at Porto Rico.
Apogon alutus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 279, and in Synopsis, 1883, 931, snapper banks off Pensacola, Fla.
2303. **Apogonichthys puncticulatus** Poey.
Cuba; Tortugas.
Apogonichthys puncticulatus Poey, Repertorio, II, 1867, 233, Cuba.
2304. **Apogonichthys melampodus** Blosser.
St. Croix Island, West Indies.
Apogonichthys melampodus Blosser, Ann. Carnegie Mus., VI, 1909, No. 1, 296, St. Croix.
- Genus 784. **ASTRAPOGON** Fowler.
Astrapogon Fowler, Proc. Acad. Nat. Sci. Phila., LXIII, 1906, 527 (*Apogonichthys stellatus* Cope).
2305. **Astrapogon stellatus** (Cope).
Bahamas.
Apogonichthys stellatus Cope, Trans. Amer. Phil. Soc., XIII, 1869, 400, Nassau, Bahama Islands.
Apogonichthys strombi Plate, Zool. Anzeiger, XXXIII, 1908, 393, with plate, Bahamas; living symbiotic in shells of *Strombus gigas*.
- Genus 785. **XYSTRAMIA** Jordan.
Xystramia Jordan, Copeia, May 24, 1917, 46 (*Glossamia pandionis* Goode and Bean).
2306. **Xystramia pandionis** (Goode and Bean).
Deep water off Chesapeake Bay.
Apogon pandionis Goode and Bean, Proc. U. S. Nat. Mus., IV, 1881, 160, deep water off Chesapeake Bay.
- Genus 786. **EPIGONUS** Rafinesque.
Epigonus Rafinesque, Indice, 1810, 64 (*E. macrophthalmus* Rafinesque).
Pomatomus Risso, in Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 171 (*P. telescopium* Risso); not of Lacépède.
Telescopus Bleeker, Arch. Néerl. Sci. Nat., XI, 1876, 261 (*Pomatomus telescopium* Risso); substitute for *Pomatomus* Cuvier; not of Lacépède.
Pomatomichthys Giglioli, Espos. Int. d. Pesca, Berlin, 1880, 20 (*P. constanciae* Giglioli = *Pomatomus telescopium* Risso).
2307. **Epigonus occidentalis** Goode and Bean.
Deep water off Barbados.
Epigonus occidentalis Goode and Bean, Oceanic Ichth., 1895, 233, off Barbados.
- Genus 787. **CHEILODIPTERUS** Lacépède.
Cheilodipterus Lacépède, Hist. Nat. Poiss., II, 1802, 539; restricted by Cuvier and Valenciennes, 1828, to *C. macrodon* Lacépède.
Clodipterus Rafinesque, Analyse Nat., 1815, 86, substitute for *Cheilodipterus* Lacépède; regarded as too long.
Paramia Bleeker, Neder. Tijdschr. Dierk., I, 1863, 233 (*Cheilodipterus lineatus* Lacépède); substitute for *Cheilodipterus* (Lacépède) Cuvier.
2308. **Cheilodipterus affinis** Poey.
Cuba; three specimens known.
Cheilodipterus affinis Poey, Ann. Acad. Nat. Sci. N. Y., XI, 1876, 58, Habana.

Family 188. SCOMBROPIDÆ

Genus 788. SPHYRÆNOPS Poey.

Sphyrænops Poey, *Memorias*, II, 1861, 249 (*S. bairdianus* Poey).

2309. *Sphyrænops bairdiana* Poey.

Deep water of Cuba; one specimen known.

Sphyrænops bairdianus Poey, *Memorias*, II, 1861, 350, Cuba.

Genus 789. PARASPHYRÆNOPS Bean.

Parasphyrænops B. A. Bean, *Proc. Biol. Soc. Wash.*, XXV, 1912, 194
(*P. atrimanus* B. A. Bean).

2310. *Parasphyrænops atrimanus* B. A. Bean.

Bermudas.

Parasphyrænops atrimanus B. A. Bean, *Proc. Biol. Soc. Wash.*, XXV, 1912, 194, Bermudas.

Genus 790. LATEBRUS Poey.

Latebrus Poey, *Memorias*, II, 1860, 168 (*L. oculatus* Poey).

2311. *Latebrus oculatus* Poey. *Escolar chino*.

Coast of Cuba; in deep water.

Latebrus oculatus Poey, *Memorias*, II, 1861, 168, with plate, Cuba.

Genus 791. HYPOCLYDONIA Goode and Bean.

Hypoclydonia Goode and Bean, *Oceanic Ichth.*, 1895, 265 (*H. bella* Goode and Bean).

2312. *Hypoclydonia bella* Goode and Bean.

Gulf Stream.

Hypoclydonia bella Goode and Bean, *Oceanic Ichth.*, 1895, 236,
Albatross stations 2314, 2397, 2401, 2417, etc., at depths from 90 to 159 fathoms.

Genus 792. AMIICHTHYS Poey.

Amiichthys Poey, in Jordan, *Proc. U. S. Nat. Mus.*, IX, 1886, 586
(*diapterus* Poey, 1861; only the specific name of this fish being published by Poey).

2313. *Amiichthys diapterus* Poey.

Coast of Cuba; two specimens known.

——— *diapterus* Poey, *Synopsis*, 1861, 305, Cuba.

Family 189. CENTRARCHIDÆ. Black basses; Sunfishes and pumpkinseeds

Genus 793. HURO Cuvier and Valenciennes. *Large-mouth black bass*.

**Nemocampsis*⁵² Rafinesque, *Ichth. Ohiensis*, 1820, 30 (*Lepomis flexuolaris* Raf.).

Huro Cuvier and Valenciennes, *Hist. Nat.*, Poiss., II, 1828, 125 (*H. nigricans* Cuvier and Valenciennes — *Cichla floridana* LeSueur).

2314. *Huro floridana* (LeSueur). *Large-mouthed black bass; Oswego bass; Green bass; Bayou bass; Chub; Trout; Jumper; Welshman; Achigan grand bouche; Achigan noir; Big-mouthed black bass; Black bass of the Huron; Black huron; Bride perch; Cow bass; Dotted paintedtail; Fresh-water trout; Gray bass; Green perch; Green trout; Growler; Huron; Lake bass; Marsh bass; Millpond chub; Moss bass; Mud bass; Paintedtail; Pale river bass; Perch; River bass; Rock bass; Salmon-formed growler; Stough bass; Southern chub; Speckled hen; Spotted bass; Straw bass; Striped bass; White bass; White salmon; White trout; Yellow bass; Yellow pondperch.*

Rivers of the United States from the Great Lakes and Red River of the North to Florida, Texas, and Mexico; west to the Dakotas, Nebraska and Kansas; introduced into lakes and streams of California. *Cichla floridana* LeSueur, *Jour. Acad. Nat. Sci. Phila.*, II, 1822, 219, east Florida.

Huro nigricans Cuvier and Valenciennes, *Hist. Nat. Poiss.*, II, 1828, 93 (124), pl. 17, Lake Huron.

Micropterus salmoides of authors; not *Labrus salmoides* Lacépède.

⁵² Except for the phrase "Mouth large," Rafinesque gives no distinctive characters for the young black bass he calls "*Nemocampsis*"; but in *Micropterus* the mouth is decidedly large, though smaller than in *Huro*.

Genus 794. MICROPTERUS Lacépède. Black bass.

Micropterus Lacépède, Hist. Nat. Poiss., IV, 325, 1802 (*M. dolomieu* Lacépède).

Calliurus Rafinesque, Jour. de Physique, 1819, 420 (*C. punctulatus* Raf.).

Aplites Rafinesque, Ichth. Ohiensis, 1820, 30 (*Lepomis pallida* Raf.).

?*Nemocampsis* Rafinesque, loc. cit., 30 (*Lepomis flexuolaris* Raf.).

Dioplites Rafinesque, loc. cit., 32 (*Lepomis notata* Raf.).

Apleston Rafinesque, loc. cit., 36 (*Etheostoma calliura* Raf.).

- 2315. *Micropterus dolomieu* Lacépède.** *Small-mouthed black bass; Achigan noir; Achigan petite bouche; Bass; Bass hogfish; Black bass; Black fresh-water bass; Black perch; Bronze-backer; Brown bass; Brown trout; Dwarf bass; Gold bass; Green bass; Green perch; Green trout; Hog bass; Jumper; Little bass; Minny bass; Mountain trout; Redeye; River bass; Rock bass; Speckled hen; Spotted river bass; Streaked-cheeked river bass; Streaked lead; Swago bass; Swego; Trout bass; Trout perch; White trout; Yellow bass; Yellow perch.*

Lake Champlain to Manitoba and southward on both sides of the mountains to South Carolina and Arkansas.

Micropterus dolomieu Lacépède, Hist. Nat. Poiss., IV, 1802, 325, type locality uncertain, probably South Carolina.

Labrus salmoides Lacépède, loc. cit., IV, 1802, 716, South Carolina.

Bodianus achigan Rafinesque, Amer. Month Mag., II, 1817, 120, New York.

Calliurus punctulatus Rafinesque, Jour. de Physique, 1819, 420, falls of the Ohio River.

Lepomis pallida Rafinesque, Ichth. Ohiensis, 1820, 30, Ohio, Miami, and Hocking Rivers.

Lepomis trifasciata Rafinesque, loc. cit., 31, Ohio River.

?*Lepomis flexuolaris* Rafinesque, loc. cit., 31, Ohio River.

Lepomis salmonea Rafinesque, loc. cit., 32, Kentucky, Green, Licking, and Ohio Rivers.

Lepomis notata Rafinesque, loc. cit., 32, Ohio River.

Etheostoma calliura Rafinesque, loc. cit., 36, Ohio River; Salt River, Ky.

Cichla fasciata LeSueur, Jour., Acad. Nat. Sci. Phila., II, 1822, 216, Lake Erie.

Cichla ohiensis LeSueur, loc. cit., 218, Ohio River.

Cichla minima LeSueur, loc. cit., 220, Lake Erie.

Centrarchus obscurus DeKay, New York Fauna: Fishes, 1842, 30, pl. 17, fig. 48, Onondaga Creek, N. Y.

Dioplites variabilis Vaillant and Bocourt, Miss. Sci. Mex., Poissons, 1875-1883, 142, Wabash River, New Harmony, Ind.

- 2316. *Micropterus pseudoplites* Hubbs. Kentucky black bass.**

Southeastern United States from western West Virginia northward to southern Ohio, westward to Kansas and central Texas.

Micropterus pseudaplites Hubbs, Proc. Okla. Acad. Sci., Part I, V, Jan. 1, 1927, 137, nomen nudum.

Micropterus pseudoplites Hubbs, Occ. Papers, Mus. Zool. Univ. Mich. No. 184, June 29, 1927, 8, Pl. I, figs. 2, 3, and 5, Forbush Creek near Mill Springs, Ky.

Genus 795. APOMOTIS Rafinesque.

Apomotis Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420 (*Lepomis cyanellus* Rafinesque).

Telipomis Rafinesque, Ichth. Ohiensis, 1820, 27 (*Lepomis cyanellus* Rafinesque).

Bryttus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 454, 461 (*B. punctatus* Cuvier and Valenciennes).

- 2317. *Apomotis cyanellus* (Rafinesque).** *Blue-spotted sunfish; Green sunfish; Little red-eye; Blackeyes; Blackeye sunfish; Blue-and-green sunfish; Blue bass; Bluefish; Blue sunfish; Bream; Buffalo sunfish; Perch; Red-eye; Sunfish; Blanco perch; Wood bass.*

Great Lakes region to Mexico; very abundant from Ohio southwestward to the Rio Grande.

Lepomis cyanellus Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420, Ohio River.

Ichelis melanops Rafinesque, Ichth. Ohiensis, 1820, 28, Ohio River.

Pomotis longulus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 391, Otter Creek, Ark.
Calliurus diaphanus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Rio Blanco, Tex.

Calliurus formosus Girard, loc. cit., 1857, 200, Arkansas.

Calliurus microps Girard, loc. cit., 200, Rio Brazos, Tex.

Calliurus murinus Girard, loc. cit., 200, Texas.

Bryttus signifer Girard, loc. cit., 201, Rio Medina, Tex.

Bryttus mineopas Cope, loc. cit., XVII, 1865, 84, Whittlesey Lake, Minneapolis, Minn.

2318. *Apomotis euryorus* (McKay).

Upper Great Lakes region. A form regarded as this occasional in the upper Mississippi.

Lepomis euryorus McKay, Proc. U. S. Nat. Mus., IV, 1881, 89, Lake Huron at Fort Gratiot, Mich. Regarded by Hubbs as a hybrid between *Apomotis cyanellus* and *Eupomotis gibbosus*.

2319. *Apomotis ischyurus* (Jordan and Nelson). *Big-nosed sunfish*.

Upper Mississippi Valley.

Lepiopus ischyurus Jordan and Nelson, Bull. U. S. Nat. Mus., X, 1877, 25, Illinois River, Ill. Rare; thought by Hubbs to be a hybrid.

2320. *Apomotis phenax* Cope and Jordan. *Deceptive sunfish*.

Streams of New Jersey.

Apomotis phenax Cope and Jordan, Bull. U. S. Nat. Mus., X, 1877, 26, Beaseley's Point, N. J.; locality possibly erroneous; rare; thought to be a hybrid.

2321. *Apomotis punctatus* (Cuvier and Valenciennes). *Bream; Chinquapin perch; Spotted bream*.

South Carolina to Florida.

Bryttus punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 347 (462), no locality, probably Charleston, S. C.

Bryttus reticulatus Cuvier and Valenciennes, loc. cit., 348 (463), Charleston, S. C.

Lepomis apiatius Cope, Proc. Amer. Phil. Soc., XVII, 1877, 65, Volusia, Fla.

2322. *Apomotis symmetricus* (Forbes)

Mississippi Valley; Illinois to Louisiana and Texas.

Lepomis symmetricus Forbes, in Jordan and Gilbert, Synopsis, 1883, 473, Illinois River, Ill.

Genus 796. *LEPOMIS Rafinesque. Sunfishes.*

Lepomis Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420 (*Labrus auritus* Linnæus).

Pomotis Rafinesque, loc. cit., 420 (*Labrus auritus* Linnæus).

Ichelis Rafinesque, Ichth. Ohiensis, 1820, 27 (*Labrus auritus* Linnæus).

2323. *Lepomis pallidus* (Mitchill).

New York.

Labrus palladus Mitchill, Trans. Lit. and Phil. Soc. N. Y., 1815, 407, New York. Misprint for *pallidus*.

Lepomis appendix Mitchill, Amer. Month. Mag., 1818, 247, New York. An uncertain species, perhaps based on *L. auritus*.

2324. *Lepomis auritus* (Linnaeus). *Yellowbelly; Redbreast bream; Sunfish;*

Tobacco-box; Long-eared sunfish; Sun perch; Bream; Redbreast; Black-eared pondfish; Flatfish; Flounder; Fresh-water sunfish; Kiver; Leather-ear; Leatherwing; Perch; Quiver; Redbelly; Red-bellied bream; Red-bellied robin perch; Red-headed bream; Red perch; Red sunfish; Red-tailed bream; Red-tailed pomotis; Roach; Robin; Robin perch; Yellow perch; River sunfish; Horned-eared sunfish.

Maine to Virginia; abundant in all streams east of the Alleghenies and south of New York.

Labrus auritus Linnæus, Syst. Nat., Ed. X, 1758, 283, Philadelphia.

Bryttus unicolor Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 348 (464), Philadelphia and Charleston.

Pomotis rubri-cauda Storer, Jour. Boston Soc. Nat. Hist., IV, 1842, 177, Concord, N. H.

Lepomis ophthalmicus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 223, 224, Roanoke River, Va.

2325. *Lepomis mystacalis* Cope.

East Florida.

Lepomis mystacalis Cope, Proc. Amer. Phil. Soc., XVII, 1877, 66, east Florida.**2326. *Lepomis solis* (Cuvier and Valenciennes).**

Virginia to Louisiana, in coastwise streams.

Pomotis solis Cuvier and Valenciennes, Hist. Nat. Poiss., 1831, 352 (468), Lake Pontchartrain, La.*Pomotis elongatus* Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 47, pl. 5, fig. 1, St. Johns River, Fla.**Genus 797. *SCLEROTIS* Hubbs.***Sclerotis* Hubbs, Proc. Okla. Acad. Sci., Pt. I, VI, Jan. 1, 1927, 138 (*Lepomis miniatus* Jordan).**2327. *Sclerotis miniatus* (Jordan). *Red perch*.**

Mississippi Valley; southern Illinois to Louisiana and Texas.

Lepiopomus miniatus Jordan, Bull. U. S. Nat. Mus., X, 1877, 26, Tangipahoa River.*Lepomis garmani* Forbes, Bull. Ill. Lab. Nat. Hist., 1885, 135, Little Fox River at Phillipstown and Wabash River and Drew Pond at Carmi, Ill.**Genus 798. *ALLOTIS* Hubbs.***Allotis* Hubbs, Proc. Okla. Acad. Sci., Pt. I, VI, Jan. 1, 1927, 139 (*Bryttus humilis* Girard).**2328. *Allotis humilis* (Girard). *Red-spotted sunfish; Bream; Orange-spotted sunfish; Perch; Sunfish*.**

Ohio and Kentucky to the Dakotas, Kansas, and Texas; locally abundant, especially in the lower Missouri Basin.

Bryttus humilis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 201, Sugar Loaf Creek, Ark.*Bryttus oculatus* Cope, loc. cit., XVII, 1865, 83, Lake Whittlesey, Minn. *Lepomis anagallinus* Cope, Jour. Acad. Nat. Sci. Phila., 2d ser., VI, January, 1869, 221, Leavenworth, Kans.**Genus 799. *XENOTIS* Jordan.***Xenotis* Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 76 (*Pomotis fallax* Baird and Girard).**2329. *Xenotis megalotis* (Rafinesque.) *Long-eared sunfish; Big-eared sunfish; Blackears; Black-tailed sunfish; Bloody sunfish; Bream; Brilliant sunfish; Common sunfish; Eared sunfish; Long-scaled sunfish; Perch; Red-bellied bream; Redbelly; Red-eyed sunfish; Small green sunfish; Sun perch*.**

Michigan to Minnesota, South Carolina, and southward to the Rio Grande.

Ichthelis megalotis Rafinesque, Ichth. Ohiensis, 1820, 29, Kentucky, Licking, and Sandy Rivers, Ky.*Pomotis nitida* Kirtland, Bost. Jour. Nat. Hist., III, 1840, 472, pl. 28, fig. 1, Mahoning River, Ohio.*Pomotis breviceps* Baird and Girard, Proc. Acad. Nat. Sci. Phila., VI, 1853, 390, Otter Creek, Ark.*Pomotis fallax* Baird and Girard, loc. cit., VII, 1854, 24, Elm Creek, Tex.*Pomotis convexifrons* Baird and Girard, loc. cit., 1854, 24, Rio Cibolo, Tex.*Pomotis nefastus* Baird and Girard, loc. cit., 24, Rio Cibolo and Salado Creek, Tex.*Pomotis sanguinolentus* Agassiz, Amer. Jour. Sci. and Arts, XVII, 1854, 301, Huntsville, Ala.*Pomotis inscriptus* Agassiz, loc. cit., 1854, 302, Huntsville, Ala.*Pomotis popeii* Girard, Pacific R. R. Surv., X, 1858, 26, headwaters of Colorado River, Tex.*Lepomis peltastes* Cope, Proc. Amer. Phil. Soc., 1870, 454, Huron River, Mich.*Xenotis lythochloris* Jordan, Ann. N. Y. Lyc. Nat. Hist., XI, 1876 (1877), 376, White River.*Xenotis aureolus* Jordan, loc. cit., 376, White River.

2330. *Xenotis occidentalis* (Meek).

Rio Grande Basin in Mexico.

Lepomis occidentalis Meek, Field Col. Mus., Zool., III, 1902, 118, Rio Conchos, Mexico.

Genus 800. *HELIOPERCA* Jordan.

Helioperca Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876 (1877), 355 (*Labrus pallidus* Cuvier and Valenciennes; not of Mitchell = *Pomotis incisor* Cuvier and Valenciennes).

Erichata Jordan, Klippart's Rept. Fish Com. Ohio, 1876 (1877), 48 (*Pomotis incisor* Cuvier and Valenciennes); uncorrected in proof, reading for *Helioperca*.

2331. *Helioperca incisor* (Cuvier and Valenciennes). Bluegill; Blue bream; Blue sunfish; Copper-nosed bream; Dollardee; Black-eared pondfish; Blue Joe; Blue-mouthed sunfish; Blue perch; Bream; Copper-headed bream; Perch; Sunfish.

Great Lakes to Florida and the Rio Grande.

Pomotis incisor Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 350 (466), New Orleans.

Pomotis gibbosus Cuvier and Valenciennes, loc. cit., 1831, 351 (467), Charleston, S. C.; not of Linnæus.

Pomotis speciosus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 24, Brownsville, Tex.

Pomotis obscurus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 302, Huntsville, Ala.; specimens almost black.

Pomotis luna Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 201, Fort Snelling, Minn.

Lepomis longispinis Cope, loc. cit., 1865, 83, Leavenworth, Kans.

Lepomis ardesiacus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 222, Kiskiminitas River, Pa.

Lepomis purpurascens Cope, Proc. Amer. Phil. Soc., XI, 1870, 454, Yadkin River, N. C.

2332. *Helioperca macrochira* (Rafinesque). Bream; Chain-sided perch; Chain-side; Gilded sunfish; Gold perch; Perch; Sunfish.

Ohio Valley and southwestward to Missouri and Kentucky.

Lepomis macrochirus Rafinesque, Jour. de Physique, LXXXVIII, 1819, 420, Ohio, Wabash, Green, and Licking Rivers.

2333. *Helioperca nephela* (Cope).

Western Pennsylvania.

Lepomis nephelus Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 222, Kiskiminitas River, western Pennsylvania. Perhaps the same as *H. macrochira*.

2334. *Helioperca marginata* (Holbrook).

Florida.

Pomotis marginatus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 49, Pl. VI, fig. 2, St. Johns River, Fla. This and the remaining species here referred to *Helioperca* are of uncertain value and of doubtful relationship.

2335. *Helioperca haplognatha* (Cope).

Monterey, Nuevo Leon, Mexico.

Lepomis haplognathus Cope, Proc. Amer. Phil. Soc., XXII, 1884 (1885), 168, Monterey, Nuevo Leon, Mexico.

2336. *Helioperca bombifrons* (Agassiz).

Tennessee River.

Pomotis bombifrons Agassiz, Amer. Jour. Sci. and Arts, XVII, 1854, 303, Huntsville, Ala.

Genus 801. *XYSTROPLITES* Jordan.

Xystroplites Jordan, Bull. X, U. S. Nat. Mus., 1877, 24 (*X. gillii* Jordan = *Pomotis pallidus* Agassiz).

2337. *Xystroplites pallidus* (Agassiz).

Georgia to Texas.

Pomotis pallidus Agassiz, Amer. Jour. Sci. Arts, 1854, 303 (name preoccupied in *Lepomis* by *Labrus palladus* Mitchell, but not in *Eupomotis*).

Bryttus albulus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Rio Blanco, Tex.

Xystroplites gillii Jordan, Bull. U. S. Nat. Mus., X, 1877, 24, "Garden Key, Florida"; evidently an error, as there is no fresh-water stream on Garden Key.

Lepomis lirus McKay, Proc. U. S. Nat. Mus., IV, 1881, 89; name a substitute for *pallidus*.

Genus 802. EUPOMOTIS Gill and Jordan.

Eupomotis Gill and Jordan, Field and Forest, II, 1877, 190 (*Sparus aureus* Walbaum = *Perca gibbosa* Linnæus).

2338. *Eupomotis heros* (Baird and Girard).

Southern Illinois, Indiana, and Ohio to Florida and the Rio Grande Basin.

Pomotis heros Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, March, 1854, 25, Rio Cibolo, Tex.

Pomotis notatus Agassiz, Amer. Jour. Sci. and Arts, XVII, 1854, 302, Huntsville, Ala.

2339. *Eupomotis holbrookii* (Cuvier and Valenciennes). *Yellow bream; Shellcracker; Strawberry bass; Branch perch.*

Virginia to Florida.

Pomotis holbrookii Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 350 (466), Charleston, S. C. Misprint for *holbrookii*.

Pomotis speciosus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 48, pl. 5, fig. 2, St. Johns River, Fla.; not of Baird and Girard.

Pomotis microlophus Günther, Cat., I, 1859, 264, St. Johns River, Fla.

2340. *Eupomotis longimanus* (Cope).

Florida to Alabama.

Xystroplites longimanus Cope, Proc. Amer. Phil. Soc., XVII, 1877, 66, Volusia and Port Bay, Fla. Perhaps identical with *E. holbrookii*.

2341. *Eupomotis gibbosus* (Linnæus). *Common sunfish; Bream; Pumpkinseed; Sunfish; Sunny; Crapet jaune; Female perch; Flatfish; Flounder; Harlequin roach; Kiver; Northern pomotis; Perch; Pond perch; Quiver; Redbelly; Roach; Robin; Robin perch; Ruff; Sand perch; Sun bass; Tobaccobox; Yellowbelly; Yellow perch.*

Great Lakes region to Maine and southward to Florida, east of the Alleghenies.

Perca gibbosa Linnæus, Syst. Nat., Ed. X, 1758, 293, Carolinas; after *Perca fluviatilis gibbosa, ventre luteo*, of Catesby.

Sparus aureus Walbaum, Artedi Pisc., 1792, 290, lakes of New York.

Morone maculata Mitchell, Fishes of New York, 1814, 18, near New York City.

Pomotis vulgaris Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 67 (91), Lake Huron, New York, Virginia, and the Carolinas.

Pomotis ravenelii Cuvier and Valenciennes, loc. cit., VII, 1831, 349 (465), Philadelphia.

Pomotis catesbei Cuvier and Valenciennes, loc. cit., 352 (469), Philadelphia.

Genus 803. CHÆNOBRYTTUS Gill.

Chænobryttus Gill, Amer. Jour. Sci. Arts, XXXVII, 1864, 92 (*Calliurus melanops* Girard = *Pomotis gulosus* Cuvier and Valenciennes).

Glossoplites Jordan, Man. Vert., ed. 1, 1876, 223 (*Calliurus melanops* Girard).

2342. *Chænobryttus gulosus* (Cuvier and Valenciennes). *Warmouth; Goggle-eye; Bigmouth; Big-mouthed sunfish; Black sunfish; Black warmouth; Bream; Buffalo bass; Chub; Jugmouth; Moremouth bream; Mud chub; Perch; Perchmouth bream; Redeye; Sac-a-lait; Sunfish; Sun trout; Warmouth perch; Warmouth bream; Wide-mouthed sunfish; Yawmouth perch; Indianfish.*

Eastern United States, from the Great Lakes to Florida and Texas, west to Kansas and the Dakotas; chiefly west or south of the Alleghenies; common in South Carolina.

Pomotis gulosus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 367 (498), Lake Pontchartrain and lagoons about New Orleans.

Calliurus floridensis Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 53, Pl. VI, fig. 1, St. Johns River, Fla.

Calliurus melanops Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Texas.

Lepomis gillii Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 222, 225, Texas.

Lepomis charybdis Cope, loc. cit., 223, Texas.

Chænobryttus antistius McKay, Proc. U. S. Nat. Mus., IV, 1881, 88, Lake Michigan.

Genus 804. AMBLOPLITES Rafinesque. Rock basses.

Ambloplites Rafinesque, Ichth. Ohiensis, 1820, 33 (*Lepomis ichtheloides* Rafinesque = *Bodianus rupestris* Rafinesque).

2343. *Ambloplites rupestris* (Rafinesque). *Common rock bass; Redeye; Goggle-eye; Redeye perch; Bream; Bronzed centrarchus; Crapet mondoux; Crapet noir; Crapet vert; Fresh-water bass; Lake bass; Red-eyed bream; Red-eyed sunfish; Sunfish; Sunfish bass; Sun perch; White bass.*

Vermont to Great Lakes region and Manitoba, south to Louisiana; very abundant west of the Alleghenies.

Bodianus rupestris Rafinesque, Amer. Month. Mag., II, 1817, 120, Lakes of New York, Vermont, and Canada.

Ichthelis erythrops Rafinesque, Ichth. Ohiensis, 1820, 29, Ohio River.

Lepomis ichtheloides Rafinesque, loc. cit., 32, Ohio River.

Cichla ænea LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1822, 214, Lake Ontario.

Centrarchus pentacanthus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 65 (88), Wabash River.

2344. *Ambloplites cavifrons* Cope. *Southern rock bass.*

Roanoke River, Va.

Ambloplites cavifrons Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 217, Roanoke River, Va.

Genus 805. ARCHOPLITES Gill.

Archoplites Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Centrarchus interruptus* Girard).

2345. *Archoplites interruptus* (Girard). *Sacramento perch.*

Sacramento and San Joaquin Rivers, Calif.

Centrarchus interruptus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 129, San Joaquin and Sacramento Rivers, Calif.

Centrarchus maculosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 7, Sacramento River.

Genus 806. ACANTHARCHUS Gill.

Acantharchus Gill, Amer. Jour. Sci. Arts, XXXVI, 1864, 92 (*Centrarchus pomotis* Baird).

2346. *Acantharchus pomotis* (Baird). *Mud sunfish; Bass sunfish; Mud bass; Mud perch.*

Southern New York to South Carolina.

Centrarchus pomotis Baird, Ninth Smiths. Rept., 1855, 325, New Jersey, New York.

Genus 807. MESOGONISTIUS Gill.

Mesogonistius Gill, Amer. Jour. Sci. Arts, XXXVII, 1864, 92 (*Pomotis chætodon* Baird).

2347. *Mesogonistius chætodon* (Baird). *Black-banded sunfish.*

New Jersey to Maryland.

Pomotis chætodon Baird, Ninth Smiths. Rept., 1855, 324, Cedar Swamp Creek, N. J.

Genus 808. ENNEACANTHUS Gill.

Enneacanthus Gill, Amer. Jour. Sci. Arts, XXXVII, 1864, 92 (*Pomotis obesus* Baird).

Hemioplites Cope, Jour. Acad. Nat. Sci. Phila., 2d ser., VI, 1868, 217 (*H. simulans* Cope = *Enneacanthus gloriosus*; abnormal example with A. IV, the dorsal erroneously stated to be X).

Copelandia Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 56 (*C. eriarcha* Jordan, an abnormal example with D. X; A. IV, of *Enneacanthus gloriosus*).

2348. *Enneacanthus obesus* (Girard). *Banded sunfish; Little bream; Little sunfish; Spotted sunfish; Rock sunfish.*

Charles River, Mass., to Florida.

Pomotis obesus Girard, Proc. Bost. Soc. Nat. Hist., V, 1854, 40, waters about Hingham and in branch of Charles River at Holliston, Mass.

Bryttus fasciatus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 51, Pl. V, fig. 3, St. Johns River, Fla.

Pomotis guttatus Morris, Proc. Acad. Nat. Sci. Phila., XI, 1859, 3, Delaware River, Philadelphia.

2349. *Enneacanthus gloriosus* (Holbrook). *Blue-spotted sunfish; Little sunfish; Spotted-finned sunfish; Spotted sunfish.*

Atlantic States; New York to Florida.

Bryttus gloriosus Holbrook, Jour. Acad. Nat. Sci. Phila., III, 1855, 52, Pl. V, fig. 4, Cooper River, S. C.

Hemioplites simulans Cope, Jour. Acad. Nat. Sci. Phila., VI, 1868, 217, Tuckahoe Creek near Richmond, Va.; abnormal examples.

Enneacanthus pinniger Gill and Jordan, Bull. U. S. Nat. Mus., X, 1877, 27, Tar River, Kinston, N. C.

Enneacanthus margarotis Gill and Jordan, loc. cit., 28, Beaseleys Point, N. J.

Copelandia eriarcha Jordan, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 56, Menominee River, Wis.; evidently an error, an abnormal example; the locality for New Jersey.

Genus 809. CENTRARCHUS Cuvier and Valenciennes. *Round basses.*

Centrarchus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 62 (84) (*Labrus irideus* Lacépède = *Labrus macropterus* Lacépède).

2350. *Centrarchus macropterus* (Lacépède). *Round sunfish; Flier; Flying perch; Large-finned bass; Long-finned sunfish; Many-spined sunfish; Millpond perch; Perch; Round bass; Sac-a-lait; Shining bass; Sunfish.*

Lowland streams from Virginia southward to Florida and Louisiana; northward in the Mississippi Valley to southern Illinois.

Labrus macropterus Lacépède, Hist. Nat. Poiss., III, 1802, 432, Charleston, S. C.

Labrus irideus Lacépède, loc. cit., IV, 716, Charleston, S. C.

Genus 810. POMOXIS Rafinesque. *Crappies.*

Pomoxis Rafinesque, Amer. Month. Mag., IV, 1818, 41 (*Pomoxis annularis* Rafinesque).

Hyperistius Gill, Amer. Jour. Sci. Arts, 1864, 92 (*Centrarchus hexacanthus* Cuvier and Valenciennes = *Labrus sparoides* Lacépède).

Subgenus POMOXIS Rafinesque.

2351. *Pomoxis annularis* Rafinesque. *Crappie; Bachelor; Sac-a-lait; New-light; Campbellite; Crapet; Bachelor perch; Bridge perch; Chinquapin perch; Goggle-eye; Goldring; John demon; Pale crappie; Papermouth; Shad; Silver perch; Speckled perch; Strawberry perch; Suckley perch; Timber crappie; Tinnmouth; Tin perch; White crappie; White perch.*

Eastern United States, from the Great Lakes south to Texas and west to Kansas and Nebraska. Introduced into Columbia River and other waters on the Pacific coast.

Pomoxis annularis Rafinesque, Amer. Month. Mag., IV, 1818, 41, falls of the Ohio River.

Cichla storeria Kirtland, Rept., Zool. Ohio, 1838, 191, Ohio River.

Pomoxis nitidus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 200, Houston River, Ky.

Pomoxys brevicauda Gill, loc. cit., XVII, 1865, 64, North Grand River, Mo.

Pomoxys intermedius Gill, loc. cit., 65, no locality.

Pomoxys protacanthus Gill, loc. cit., 66, Tarboro, N. C.

Subgenus **HYPERISTIUS** Gill.

- 2352. Pomoxis sparoides** (Lacépède). *Calico bass; Grass bass; Barfish; Strawberry bass; Bachelor; Banklick bass; Bitterhead; Calico bream; Chinquapin perch; Crapet; Crappie; Dolly Varden; Goggle-eye; Lake bass; Lake Erie bass; Millpond flier; Razorback; Roach; Rockfish; Sand perch; Silver bass; Silver perch; Speckled bass; Spotted perch; Spotted trout; Straw bass; Sun perch; Tinmouth; White perch; Black crappie.*

Great Lakes and upper Mississippi Valley to New Jersey and southward to Florida, Louisiana, and Texas. Introduced into Pacific coast streams. *Labrus sparoides* Lacépède, Hist. Nat. Poiss., III, 1802, 517 and 518, South Carolina.

Cantharus nigro-maculatus LeSueur, in Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 65 (88), Wabash River.

Centrarchus hexacanthus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 344 (459), Charleston, S. C.

Hyperistius carolinensis Gill, Amer. Jour. Sci. Arts, XXXVI, 1864, 93, South Carolina.

Family 190. **ELASSOMIDÆ**Genus 811. **ELASSOMA** Jordan.

Elassoma Jordan, Bull. U. S. Nat. Mus., X, 1877, 50 (*E. zonata* Jordan).

Elassosoma Boulenger; attempted correction but the name is from ἐλάσσωμα, a diminution.

- 2353. Elassoma zonatum** Jordan. *Pigmy sunfish.*

Southern Illinois to Texas and Alabama.

Elassoma zonata Jordan, Bull. U. S. Nat. Mus., X, 1877, 50, Little Red River, White County, Ark.

- 2354. Elassoma evergladei** Jordan. *Everglades pigmy sunfish.*

Swamps of southern Georgia and Florida; locally common in dark waters tributary to the Everglades.

Elassoma evergladei Jordan, Proc. U. S. Nat. Mus., VII, 1884, 323, St. Johns and Suwanee Rivers, Fla.

Family 191. **KUHLIIDÆ**. Mountain bass; SeseleGenus 812. **SAFOLE** Jordan.

Safale Jordan, Proc. U. S. Nat. Mus., XLII, 1912, 655 (*Dules tæniurus* Cuvier and Valenciennes).

- 2355. Safale tæniura** (Cuvier and Valenciennes).

Galapagos and Revillagigedo archipelagoes; locally common; South Seas and Hawaii to Japan; throughout the warm parts of the Pacific, in the open sea, away from coral reefs; not in California.

Dules tæniurus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 85 (114), Java.

Kuhlia arge Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 159, Chatham Island, Galapagos.

Family 192. **CENTROPOMIDÆ**. RobalosGenus 813. **CENTROPOMUS** Lacépède. *Robalos.*

Centropomus Lacépède, Hist. Nat. Poiss., IV, 1802, 248 (*lucioperca undecimalis*, etc.; restricted to *Sciæna undecimalis* Bloch by Cuvier and Valenciennes).

Oxylabraz Bleeker, Archiv Neerl., XI, 1876, 264 (same type *Centropomus* being restricted to the first species named by Lacépède).

- 2356. Centropomus undecimalis** (Bloch). *Robalo; Sergeantfish; Snook; Brochet de mer.*

Coasts of Florida and Texas, southward among the West Indies to Surinam or beyond; Bay of Panama.

Sciæna undecimalis Bloch, Naturgeschichte. Ausl. Fische, VI, 1792, 60, Jamaica.

Centropomus undecim-radiatus Lacépède, Hist. Nat. Poiss., IV, 1802, 268; after Bloch.

Perca loubina Lacépède, loc. cit., 397, Cayenne.

Sphyræna aureoviridis Lacépède, loc. cit., V, 1803, 324, Martinique.

Centropomus appendiculatus Poey, Memorias, II, 1860, 119, Cuba.

2357. *Centropomus viridis* Lockington. *Robalo*.
Pacific coast of Mexico; common from Gulf of California to Panama.
Centropomus viridis Lockington, Proc. Calif. Acad. Sci., VII, 1876 (1877), 110, off Ascension Island, Lower California. Probably not separable from *C. undecimalis*.
2358. *Centropomus nigrescens* Günther. *Robalo prieto*.
Pacific coast of tropical America; generally common from Mazatlan to Panama.
Centropomus nigrescens Günther, Proc. Zool. Soc. Lond., 1864 (Mar. 22), 144, Chiapam.
2359. *Centropomus pedimacula* Poey. *Constantino de las aletas prietas*; *Robalito de las aletas prietas*.
Both coasts of tropical America; common in Cuba; Jamaica; south to Brazil.
Centropomus pedimacula Poey, Memorias, II, 1860, 122, Habana and Cienfuegos, Cuba.
Centropomus medius Günther, Proc. Zool. Soc. Lond., 1864, 144, Chiapam.
Centropomus cuvieri Bocourt, Ann. Sci. Nat. Paris, IX, 1868, 91, Haiti.
Centropomus grandoculatus Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 139, Guaymas, Sonora. Probably distinct.
2360. *Centropomus parallelus* Poey.
Coasts of Cuba; San Domingo, Jamaica, Barbados, and Rio Chagres; Guiana, Pernambuco, and Bahia; Porto Rico.
Centropomus parallelus Poey, Memorias, II, 1861, 120, Habana and Cienfuegos, Cuba.
Centropomus mexicanus Bocourt, Ann. Sci. Nat. Paris, IX, 1868, 90, Gulf of Mexico.
2361. *Centropomus pectinatus* Poey.
Coasts of Cuba.
Centropomus undecimalis Cuvier and Valenciennes (part; not of Bloch), Hist. Nat. Poiss., II, 1828, 102 (*Centropomus pectinatus* Poey, Memorias, II, 1861, 121; Habana and Cienfuegos, Cuba).
2362. *Centropomus unionensis* Bocourt.
Pacific coast of Central America; rather common at Panama.
Centropomus unionensis Bocourt, Ann. Sci. Nat. Paris, IX, 1868, 90, La Union, San Salvador.
2363. *Centropomus armatus* Gill.
Pacific coast of Central America; common from Chiapas to Panama.
Centropomus armatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 163, Panama.
2364. *Centropomus robalito* Jordan and Gilbert. *Constantino*; *Robalito las aletas amarillas*.
Pacific coast of Mexico, from Mazatlan to Panama.
Centropomus robalito Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 462, Mazatlan; Acapulco.
2365. *Centropomus ensiferus* Poey.
West Indies; generally common from Cuba to Surinam.
Centropomus ensiferus Poey, Memorias, II, 1861, 122, Habana.
Centropomus brevis Günther, Proc. Zool. Soc. Lond., 1864, 145, locality unknown, tropical America.
Centropomus affinis Steindachner, Ichth. Notizen, I, 1864, 1, pl. 1, fig. 1, Rio Janeiro and Cajutuba; Demerara, Guiana.
Centropomus scaber Bocourt, Ann. Sci. Nat., 5 ser., IX, 1868, 90, marshes of Belize.

Family 193. MORONIDÆ. White bass

Genus 814. *ROCCUS* Mitchill. *Striped bass.*

Roccus Mitchill, Fishes of New York, 1814, 24 (*R. striatus* Mitchill = *Sciaena lineata* Bloch).

2366. *Roccus saxatilis*⁵³ (Walbaum). *Striped bass; Rockfish; Rock; Mis-sucke-ke-kequoock.*

Atlantic coasts of North America from New Brunswick to Escambia River, Fla.; introduced by the U. S. Fish Commission into Sacramento River, Calif.

Perca saxatilis Walbaum, Artedi Gen. Pisc., 1792, 330, New York.

Perca septentrionalis Bloch and Schneider, Systema Ichthyol., 1801, 90, New York.

Roccus striatus Mitchill, Rep. Fishes N. Y., 1814, 24, New York.

Perca mitchilli Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 413, pl. 3, fig. 4, New York.

Perca mitchilli alternata Mitchill, loc. cit., 415, New York.

Perca mitchilli interrupta Mitchill, loc. cit., 415, New York.

Genus 815. *LEPIBEMA* Rafinesque.

Lepibema Rafinesque, Ichth. Ohiensis, 1820, 23 (*Perca chrysops* Rafinesque).

2367. *Lepibema chrysops* (Rafinesque). *White bass; White lake bass; sometimes silver bass at Sandusky, Ohio.*

Great Lakes region, upper Mississippi and Ohio Valleys, south to Washita River.

Perca chrysops Rafinesque, Ichth. Ohiensis, 1820, 22, falls of the Ohio.

Labrax multilineatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1830, 360 (488), Wabash River.

Labrax notatus Richardson, Fauna Bor.-Amer., III, 1836, 8, lower St. Lawrence River.

Labrax albidus DeKay, N. Y. Fauna: Fishes, 1842, 13, pl. 51, fig. 165, Buffalo, N. Y.

Labrax osculatii Filippi, Rev. et. Mag. de Zoologie, 2d series, V, 1853, 164, Canada.

Genus 816. *CHRYSOPEPERCA* Fowler.

Chrysoperca Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 250 (*Morone interrupta* Gill).

2368. *Chrysoperca interrupta* (Gill). *Yellow bass.*

Lower Mississippi Valley north to Cincinnati, Terre Haute, and St. Louis.

Morone interrupta Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 118, St. Louis; New Orleans.

Morone mississippiensis Jordan and Eigenmann, Proc. Acad. Nat. Sci. Phila., XXXIX, 1887, 295; substitute for *Morone interrupta*, preoccupied in *Roccus*, not in *Morone* nor in *Chrysoperca*.

Genus 817. *MORONE* Mitchill. *White perch.*

Morone Mitchill, Fishes of New York, 1814, 17 (*M. pallida* Mitchill = *Perca americana* Gmelin).

2369. *Morone americana* (Gmelin). *White perch; Silver perch; Sea perch.*

Atlantic coast of North America from Nova Scotia to South Carolina in brackish water, ascending streams, and frequently landlocked in ponds.

Perca americana Gmelin, Syst. Nat., I, III, 1789, 1308, New York; after Schöpf.

Perca immaculata Walbaum, Artedi Genera Piscium, 1792, 330, New York; after Schöpf.

Morone rufa Mitchill, Rep. Fishes N. Y., 1814, 18, New York.

Morone pallida Mitchill, loc. cit., 17, New York.

?*Centropomus albus* Rafinesque, Précis des Découvertes Somnolog., 1814, 19, Philadelphia.

⁵³ This species is usually called *Roccus lineatus* after *Sciaena lineata* Bloch (Ausländische Fische, VI, 1792, 62); but it can not be the same. The form, serræ of the preopercle, and the stout spines of the fin, as well as the asserted locality ("Mediterranean") indicate that the species concerned is *Dicentrarchus lupus* of Europe. The only resemblance to *Roccus* is found in the striped color; but Bloch says that the stripes on the sides are yellow.

- Perca mucronata* Rafinesque, Amer. Month. Mag. and Crit. Rev., II, 1818, 204, Delaware, Schuylkill, and Susquehanna Rivers.
Labrax nigricans DeKay, Nat. Hist. N. Y., Fishes, 1842, 12, pl. 50, fig. 160, Long Island.

Family 194. EPINEPHELIDÆ. Sea basses, groupers, garrupas, etc.

Genus 818. STEREOLEPIS Ayres. *Jewfishes.*

- Stereolepis* Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 28 (*S. gigas* Ayres).
Megaperca Hilgendorf, Sitzb. Gesell. Naturf. Freunde, Berlin, 1878, 155 (*M. ishinagi* Hilgendorf).

2370. *Stereolepis gigas* Ayres. *California jewfish.*

Coast of California, north to the Farallons.

Stereolepis gigas Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 28, southern California.

Stereolepis californicus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 330, California; substitute for *S. gigas*, supposed to be preoccupied in this genus.

Genus 819. POLYPRION Cuvier. *Wreckfishes.*

Polyprion Cuvier, Règne Animal, ed. 1, II, 1817, 282 (?*Amphiprion americanus* Bloch and Schneider).

2371. *Polyprion americanus* (Bloch and Schneider). *Wreckfish; Stone bass; Cernier.*

Gulf stream; Grand Banks and New Jersey; also in Europe if *P. massiliensis* is the same, which is not certain.

Amphiprion americanus Bloch and Schneider, Syst. Ichth., 1801, 205, pl. 47; based on a drawing sent by Latham to Schneider representing some fish called in America "Girom"; called *Amphiprion australis* on pl. 47.

?*Scorpena massiliensis* Risso, Ichth. Nice, 1810, 184, Marseilles.

?*Polyprion cernium* Cuvier, Mém. du Museum, XI, 1824, 265, Pl. XVII, France.

?*Holocentrus gulo* Risso, Europe Mérid., III, 1826, 367, Nice.

?*Serranus couchii* Yarrell, British Fishes, ed. 1, I, 1836, 12, Great Britain.

Genus 820. GONIOPLECTRUS Gill. *Spanish flags.*

Gonioplectrus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236, 237 (*Plectropoma hispanum* Cuvier and Valenciennes).

2372. *Gonioplectrus hispanus* (Cuvier and Valenciennes). *Spanish flag; Ouatilibi espagnol; Bijaiba de lo alto.*

West Indies; Cuba.

Plectropoma hispanum Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 298 (396), Martinique.

Genus 821. PETROMETOPON Gill. *Enjambre.*

Petrometopon Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 105 (*Perca guttatus* Poey = *Sparus cruentatus* Lacépède).

2373. *Petrometopon cruentatus* (Lacépède). *Enjambre; Coney; Rock hind.*
 West Indian fauna, Brazil to Florida Keys; very common on Cuba coast.

Sparus cruentatus Lacépède, Hist. Nat. Poiss., IV, 1802, 156, Martinique; on a copy of Plumier's drawing.

?*Perca guttata* Bloch, Ichthyol., 1792, 312, Martinique, not of Linnæus.

Saranus apiarius Poey, Memorias, II, 1861, 143, Habana.

2374. *Petrometopon cruentatus coronatus* (Cuvier and Valenciennes). *Brown hind; Petite nègre.*

West Indies, north to Key West.

Serranus coronatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 278 (371), Martinique.

2375. *Petrometopon panamensis* (Steindachner).

Panama.

Serranus panamensis Steindachner, Ichth. Beitr., IV, 1875, 1, with plate, Panama.

Genus 822. CEPHALOPHOLIS Bloch and Schneider.

Cephalopholis Bloch and Schneider, Syst. Ichth., 1801, 311 (*C. argus* Bloch and Schneider).

Uripaëton Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 202 (*Serranus*⁵⁴ *phaëton* Cuvier and Valenciennes = *U. microleptes* Swainson).

Enneacentrus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 105 (*Serranus ouatilibi* Cuvier and Valenciennes = *Labrus fulvus* Linnaeus).

Bodianus Bloch, in part, restricted by Cuvier and Valenciennes to *Bodianus guttatus*, etc., later restricted to *Bodianus bodianus* = *Harpe rufa* through tautonymy.

- 2376. *Cephalopholis fulvus***⁵⁵ (Linnaeus). *Guativere*; *Niggerfish*; *Yellowfish*; *Butterfish*; *Lemon-yellow butterfish*; *Guativere amarilla*.

West Indies; Bermuda and Florida Keys to Bahia.

Labrus fulvus Linnaeus, Syst. Nat., Ed. X, 1758, 287, Bahamas; after Catesby.

Guativere amarillas Parra, Deser. Dif. Piezas, Hist. Nat. Cuba, 8 lam., V, 1787, fig. 2, Cuba.

Holocentrus auratus Bloch, Naturgesch. Ausl. Fische, IV, 1790, 75, East Indies.

Bodianus guativere Bloch and Schneider, Syst. Ichth., 1801, 336 (after Parra's figure).

- 2377. *Cephalopholis fulvus ruber*** (Bloch and Schneider). *Red guativere*; *Ouatilibi*; *Rock hind*.

West Indies, etc.; very common.

Gymnocephalus ruber Bloch and Schneider, Syst. Ichth., 1801, 346, pl. 67, on *Carana* of Marcgrave; not *Epinephelus ruber* Bloch.

Serranus ouatilibi Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 286 (381), Habana.

Serranus carana Cuvier and Valenciennes, loc. cit., 288 (384), no locality given.

- 2378. *Cephalopholis fulvus punctatus*** (Linnaeus). *Niggerfish*; *Negrofish*; *Black guativere*.

West Indies, etc.; everywhere common.

Perca punctata Linnaeus, Syst. Nat., ed. X, 1758, 291, Bahamas; based on Catesby.

- 2379. *Cephalopholis stellatus*** (Blosser).

St. Croix.

Bodianus stellatus Blosser, Ann. Carnegie Mus., VI, 1909, 297, St. Croix.

- 2380. *Cephalopholis tæniops*** (Cuvier and Valenciennes).

West coast of Africa, straying to Florida.

Serranus tæniops Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 277 (370), Cape Verde Islands.

Genus 823. MENEPHORUS Poey.

Menephorus Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1871, 50 (*Serranus dubius* Poey).

- 2381. *Menephorus dubius*** (Poey).

Cuba.

Serranus dubius Poey, Memorias, II, 1861, 142, Cuba.

- 2382. *Menephorus punctiferus*** (Poey).

Cuba.

Menephorus punctiferus Poey, Enumeratio, 1875, 21, Habana.

Genus 824. ENNEISTUS Jordan and Evermann.

Enneistus Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1147 (*Bodianus acanthistius* Gilbert).

- 2383. *Enneistus acanthistius*** (Gilbert).

Cape Lobos, eastern shore of Gulf of California.

Bodianus acanthistius Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 552, Cape Lobos, eastern shore of Gulf of California at Albatross station 3017, in 58 fathoms.

⁵⁴ A spurious species, *Cephalopolis nigripinnis* to which the tail of a *Fistularia* had been attached.

⁵⁵ The various forms here treated as subspecies seem to inhabit varying depths of water and should be regarded rather as forms of *C. fulvus*.

Genus 825. EPINEPHELUS Bloch. Groupers.

- Epinephelus* Bloch, Nat. Ausl. Fische, VII, 1793, 11 (*E. marginalis*).
Cerna Bonaparte, Introd. Fauna Italica, III, 1833, pt. 1 (*Perca gigas* Brännich).
Cromileptes Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 201 (*Serranus altivelis* Cuvier and Valenciennes).
Cynichthys Swainson, loc. cit., 201 (*Perca flavopurpurea* Bennett = *Holocentrus flavoceruleus* Lacépède).
Hyphorhodus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 98 (*Serranus niveatus* Cuvier and Valenciennes).
Labroperca Gill, loc. cit., XIV, 1862, 236 (*Serranus labriformis* Jenyns).
Schistorus Gill, loc. cit., 237 (*Serranus mystacinus* Poey).
Merus Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1871, 39 (*Serranus gigas* Cuvier and Valenciennes).
Priacanthichthys Day, Proc. Zool. Soc. Lond., 1868, 193 (*P. maderaspatensis* Day = *Epinephelus latifasciatus* Temminck and Schlegel).
Homalagrystes Alleyne and Macleay, Proc. Linn. Soc. New South Wales, 1877, 268 (*H. guentheri* Alleyne and Macleay).
Hyposerranus Klunzinger, Fische des Rothen Meeres, 1884, 3 (*Serranus morrhua* Cuvier and Valenciennes).

Subgenus SCHISTORUS Gill.

2384. *Epinephelus mystacinus* (Poey). *Cherna de lo alto*.
 West Indies south to Brazil.
Serranus mystacinus Poey, Memorias, I, 1852, 52, Tab. 10, fig. 1, Cuba

Subgenus EPINEPHELUS Bloch.

2385. *Epinephelus analogus* Gill. *Cabrilla pinta*.
 Pacific coast of tropical America; common on coast of Mexico.
Epinephelus analogus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 163, Panama.
 ?*Serranus courtadei* Bocourt, Ann. Sci. Nat. Paris, X, 1868, 222, La Union, San Salvador.
2386. *Epinephelus adscensionis* (Osbeck). *Rock hind; Cabra mora*.
 West Indies; Florida Keys to Brazil; Ascension and St. Helena Islands; Woods Hole, Mass.
Perca tota Siba, Thesaurus, LII, 1758, Tab. 27.
Trachinus adscensionis Osbeck, Iter Chin., etc., 1757, and English ed., 1771, 96, Ascension Island.
Trachinus punctatus Bonnaterre, Tableau Encycl., 1788, 46; after Osbeck.
Perca stellio Walbaum, Artedi Pisc., 1792, 349; after Siba.
 ?*Perca maculata* Bloch, Nat. Ausl. Fische, 1792, 92, Martinique; on a figure by Plumier. Name preoccupied in *Epinephelus*.
Trachinus osbeck Lacépède, Hist. Nat. Poiss., II, 1800, 364; after Osbeck.
Sparus atlanticus Lacépède, loc. cit., IV, 1803, 158, pl. 5, fig. 1, Martinique; on a drawing by Plumier.
Serranus nigriculus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 381 (375); Martinique.
Serranus pixanga Cuvier and Valenciennes, loc. cit., 288 (383), after Pira-Pixanga or Gat-Vichof, Marcgrave, Hist. Brazil, 1648, 152.
Serranus aspersus Jenyns, Voy. Beagle, Fishes, 1842, 6, Porto Praya, St. Jago of the Cape Verde Islands.
Serranus impetiginosus Müller and Troschel, Schomburgk's Hist. Barb., 1848, 665, Barbados.
 ?*Serranus varius* Bocourt, Ann. Sci. Nat., X, 1868, 222, Gulf coast of Mexico.
2387. *Epinephelus guaza* (Linnaeus). *Merou; Mérou; Guasa*.
 Coasts of southern Europe and western Africa, ranging north to England, southward to Cape of Good Hope, and westward to Rio Janeiro and to Guiana. The American form, *E. mentzeli* (Cuvier and Valenciennes), may prove different.
Labrus guaza Linnaeus, Syst. Nat., ed. X, 1758, 285, "Habitat in Pelago."
Perca gigas Brunnich, Ichth. Massiliensis, No. 81, 1768, 65, Marseilles.
Holocentrus merou Lacépède, Hist. Nat. Poiss., IV, 1803, 377, Marseilles; after Brunnich.

?*Serranus mentzelii* Cuvier and Valenciennes, loc. cit., II, 1828, 216 (291), coast of Brazil.

Perca robusta Couch, Mag. Nat. Hist., V, 1832, 21, fig. 7, Polperro, Cornwall.

Serranus marginatus Lowe, Proc. Zool. Soc. Lond., pt. 1, 1833, 142, Madeira.

Serranus fimbriatus Lowe, Trans. Cambr. Phil. Soc., 1836, 195, pl. 1, Madeira.

?*Epinephelus brachysoma* Cope, Trans. Amer. Phil. Soc., XIV, 1871, 466, Rio Janeiro.

2388. *Epinephelus labriformis* (Jenyns).

Pacific coast of tropical America; Cape San Lucas to Galapagos Islands. *Serranus labriformis* Jenyns, Voyage *Beagle*, Fishes, 1842, 8, pl. 3, Galapagos Islands.

Epinephelus sellicauda Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 250, Cape San Lucas.

Epinephelus ordinatus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 466, Panama.

2389. *Epinephelus flavolimbatus* Poey. Yellow-finned grouper.

West Indies, north to Pensacola.

Epinephelus flavolimbatus Poey, Repertorio, I, 1866, 183, Cuba.

2390. *Epinephelus niveatus* (Cuvier and Valenciennes). Spotted grouper; Snowy grouper.

West Indies to Brazil, occasionally northward in the Gulf Stream as far as Newport, R. I., and Woods Hole, Mass.

Serranus niveatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 285 (380), Brazil.

Serranus margaritifer Günther, Cat., I, 1859, 131, South America.

Serranus conspersus Poey, Memorias, II, 1860, 139, Cuba.

Hyporthodus flavicauda Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 98, Newport, R. I.

2391. *Epinephelus striatus* (Bloch). Nassau grouper; Hamlet; Cherna criolla; Grouper; Rockfish.

West Indian fauna; Key West to Brazil.

Cherna Parra, Dif. Piezas, 1787, 50, Habana.

Anthias striatus Bloch, Naturgesch. Ausl. Fische, VI, 1792, 125, Martinique; on figure by Plumier.

Anthias cherna Bloch and Schneider, Syst. Ichth., 1801, 310, Cuba; after Parra.

Sparus chrysomelanurus Lacépède, Hist. Nat. Poiss., IV, 1803, 160, Martinique; on a copy of Plumier.

2392. *Epinephelus guttatus* (Linnaeus). Cabrilla; Red hind.

West Indies; Carolina to Brazil, occasionally north to Charleston, the Florida Keys, and the Bermudas.

Perca guttata Linnaeus, Syst. Nat., ed. X, 1758, 292, Brazil; after Marcgrave, in part, but with a type specimen, examined by Lönnberg.

Cabrilla Parra, Dif. Piezas, Hist. Nat. Cuba, 1787, 93, pl. 36, Habana.

Lutjanus lunulatus Bloch and Schneider, Syst. Ichth., 1801, 329; after Parra, not *L. lunulatus* of Park.

Serranus catus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 250 (373), Martinique.

Serranus maculosus Cuvier and Valenciennes, loc. cit., 332; verified by Boulenger.

Serranus arara Cuvier and Valenciennes, loc. cit., 283 (377), Habana.

Epinephelus cubanus Poey, Repertorio, I, 1866, 202, Cuba.

Serranus stadthouderi Vaillant, Miss. Sci. Mex., Poiss., 1877, 69, substitute for *maculosus* regarded as preoccupied by *maculatus*.

2393. *Epinephelus angustifrons* (Steindachner).

Coast of Cuba.

Serranus angustifrons Steindachner, Verh. Ges. Wien, XIV, 230, Pl. VII, figs. 2 and 3, 1864, Cuba.

2394. *Epinephelus drummond-hayi* Goode and Bean. *Speckled hind*;
John paw.
Bermudas, south Atlantic and Gulf coast of United States; Charleston,
S. C.
Epinephelus drummond-hayi Goode and Bean, Proc. U. S. Nat. Mus.,
I, 1878, 173, 174, Pensacola; Bermuda.

2395. *Epinephelus niphobles* Gilbert and Starks.
Magdalena Bay, Lower California.
Epinephelus niphobles Gilbert and Starks, Proc. U. S. Nat. Mus., XIX,
1896, 442, Magdalena Bay, Lower California.

Subgenus VIVERO⁵⁶ Jordan and Evermann.

2396. *Epinephelus morio* (Cuvier and Valenciennes). *Red grouper*; *Cherna americana*; *Cherna de vivero*; *Nègre*.
Atlantic coast of America; Woods Hole to Rio Janeiro.
Serranus morio Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828,
211 (285), New York and San Domingo.
Serranus erythrogaster DeKay, New York Fauna: Fishes, 1842, 21, pl.
19, fig. 52, Florida.
Serranus remotus Poey, Memorias, II, 1860, 140, Cuba.

Genus 826. GARRUPA Jordan. *Black groupers*.

Garrupa Jordan, Bull. U. S. Fish Com., VIII, 1888 (1890), 353 (*Serranus nigrilus* Holbrook).

2397. *Garrupa nigrita* (Holbrook). *Black jewfish*; *Black grouper*; *Mero de lo alto*.
South Atlantic and Gulf coast of the United States, Charleston and
Pensacola to Cuba and Brazil; perhaps straying to Sicily.
Serranus nigrilus Holbrook, Ichth. South Carolina, Ed. I, 1855, 173,
pl. 25, fig. 11, Charleston, S. C.
Centropristis merus Poey, Synopsis Piscium Cubensium, 1868, 288,
Cuba.
? *Cerna sicana* Doderlein, Rivista delle Specie del Genere *Epinephelus*
o *Cerna*, 1882, 81, Palermo.

Genus 827. PROMICROPS Gill. *Guasas*.

Promicrops Gill, in Poey, Synopsis, 1868, 287 (*Serranus guasa* Poey =
Itaiara Lichtenstein).
Itaiara Vaillant and Bocourt, Miss. Sci. Mexique, 1875, 90 (*Serranus*
itaiara Lichtenstein).

2398. *Promicrops itaiara* (Lichtenstein). *Guasa*; *Spotted jewfish*; *Méro*.
Atlantic coast of tropical America, from Florida to Brazil; not uncommon about rocks.
Cugupuguacu Catesby, Nat. Hist. Carolina, 1771, 14; nonbinomial.
Serranus itaiara Lichtenstein, Abhandl. Berlin Acad. Wiss., 1821 (1822),
278, Brazil; not *Itaiara* of Maregrave.
Serranus galeus Müller and Troschel, in Schomburgk's Reise in Brit.
Guiana, 1848, 621, Guiana.
Serranus guasa Poey, Memorias, II, 1861, 141; 1861, 354, Cuba.

2399. *Promicrops quinquefasciata* (Bocourt).

Pacific coast of Central America.

Serranus quinquefasciatus Bocourt, Ann. Sci. Nat., X, 1868, 223, Nagua-
late, Pacific coast of Guatemala; very close to *P. itaiara*.

Genus 828. ALPHESTES Bloch and Schneider.

Alphestes Bloch and Schneider, Syst. Ichth., 1801, 236 (*Epinephelus*
afer Bloch).

Prospinus Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 287
(*Plectropoma chloropteron* Cuvier and Valenciennes = *Alphestes afer*
Bloch).

2400. *Alphestes afer* (Bloch).

West Indies; Cuba to Brazil; recorded perhaps doubtfully from Guinea,
if so, the American species, *A. chloropterus*, may prove different.

Epinephelus afer Bloch, Ichthyol., 1793, pl. 327, Acará in Guinea.

Plectropoma chloropteron Cuvier and Valenciennes, Hist. Nat. Poiss.,
II, 1828, 300 (398), San Domingo, Martinique.

⁵⁶ The subgenus *Vivero* is based on *Epinephelus morio* (Cuv. & Val.) which differs from all other species of *Epinephelus* in the elevation of the second dorsal spine.

Plectropoma monacanthus Müller and Troschel, in Schomburgk's Hist. Barbados, 1847, 665, Barbados.

?*Serranus armatus* Osorio, Jour. Sci. Lisbon, III, 1894, 74.

2401. *Alphestes multiguttatus* (Günther).

Pacific coast of tropical America; Mazatlan to Panama.

Plectropoma multiguttatum Günther, Proc. Zool. Soc. Lond., 1866, 600, Panama.

2402. *Alpestes lightfooti* (Fowler).

San Domingo, West Indies.

Epinephelus lightfooti Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 258, fig. 3, San Domingo.

Genus 829. *DERMATOLEPIS* Gill.

Dermatolepis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 54 (*Dermatolepis punctatus* Gill).

Lioperca Gill, loc. cit., XIV, 1862, 237 (*Serranus inermis* Cuvier and Valenciennes).

2403. *Dermatolepis punctatus* Gill.

West coast of Mexico; Cape San Lucas; the Venados; the Revillagigedos.

Dermatolepis punctatus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 54, Cape San Lucas.

2404. *Dermatolepis zancus* Evermann and Kendall.

Key West.

Dermatolepis zancus Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 129, pl. 8, fig. 9, Key West, Fla.

Subgenus *LIOPERCA* Gill.

2405. *Dermatolepis inermis* (Cuvier and Valenciennes).

West Indies.

Serranus inermis Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 322 (436), Antilles.

Genus 830. *TRISOTROPIS* Gill.

Trisotropis Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 104 (*Johnius guttatus* Bloch and Schneider = *Perca venenosa* Linnaeus).

Archoperca Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1171 (*Mycteroperca boulengeri* Jordan and Starks).

Subgenus *ARCHOPERCA* Jordan and Evermann.

2406. *Trisotropis boulengeri* (Jordan and Starks). *Cabrilla de raizero*; *Mangrove grouper*.

Mazatlan, Mexico.

Mycteroperca boulengeri Jordan and Starks, in Jordan, Fishes Sinaloa, Proc. Calif. Acad. Sci., V, 1895, 445, pl. 38, taken in the Astillero at Mazatlan, Mexico.

Subgenus *TRISOTROPIS* Gill.

2407. *Trisotropis venenosus* (Linnaeus). *Rockfish*; *Yellow-finned grouper*; *Bonaci de Piedra*.

Bahamas, Florida Keys, and southward.

Perca venenosa Linnaeus, Syst. Nat., Ed. X, 1758, 292, Bahamas; after Catesby.

Serranus petrosus Poey, Memorias, II, 1861, 136, Cuba.

2408. *Trisotropis venenosus apua* (Bloch). *Bonaci cardenal*.

West Indies, Florida Keys, and southward to Brazil. A red form of *T. venenosus*.

Bodianus apua Bloch, Nat. Ausl. Fische, IV, 1790, 50, Brazil; after a drawing by Prince Maurice—the same used by Marcgrave.

Pirati apia Marcgrave, Hist. Brasil., 1648, 158, Brazil.

Bonaci cardenal Parra, Piezas de Hist. Nat. Cuba, 1787, 29, Pl. XVI, Habana.

Johnius guttatus Bloch and Schneider, Syst. Ichth., 1801, 77; after Parra.

Bodianus marginatus Bloch and Schneider, loc. cit., 331; after Marcgrave.

Serranus rupestris Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 323 (437), San Domingo.

2409. *Trisotropis bonaci* (Poey). *Marbled rockfish; Bonaci arara; Black grouper; Aguaji; Bonaci.*
 West Indies; Pensacola to Brazil; Woods Hole, Mass.
Serranus bonaci Poey, *Memorias*, II, 1861, 129, Cuba.
Serranus brunneus Poey, loc. cit., 131, Cuba.
Serranus decimalis Poey, loc. cit., 138, Cuba; specimen with ten dorsal spines.
Trisotropis aguaji Poey, *Repertorio*, II, 1868, 229, Habana.
Serranus cyclopomatus Poey, *Memorias*, 1861, 353, Cuba.
Serranus latepictus Poey, loc. cit., 353, Cuba.
2410. *Trisotropis xanthostictus* (Jordan and Swain).
 Snapper Banks off Pensacola, Fla.
Mycteroperca bonaci xanthosticta Jordan and Swain, *Proc. U. S. Nat. Mus.*, VII, 1884, 371, Snapper Banks off Pensacola, Fla.
2411. *Trisotropis jordani* (Jenkins and Evermann). *Cabrilla de astillero; Baya.*
 Pacific coast of Mexico from Gulf of California to Mazatlan.
Epinephelus jordani Jenkins and Evermann, *Proc. U. S. Nat. Mus.*, XI, 1888, 140, Guaymas, Sonora.
2412. *Trisotropis microlepis* Goode and Bean. *Gog; Aguaji.*
 South Atlantic and Gulf coast of United States, north to Virginia, south to Pensacola and Key West.
Trisotropis microlepis Goode and Bean, *Proc. U. S. Nat. Mus.*, II, 1879, 141, west Florida.
Trisotropis stomias Goode and Bean, loc. cit., V, 1882, 427, Pensacola; Key West.
2413. *Trisotropis interstitialis* (Poey).
 Coast of Cuba; Woods Hole, Mass.
Serranus interstitialis Poey, *Memorias*, II, 1861, 127, Cuba.
Trisotropis chlorostomus Poey, *Repertorio*, II, 1868, 231, Cuba.
2414. *Trisotropis dimidiatus* (Poey).
 Coast of Cuba.
Serranus dimidiatus Poey, *Memorias*, II, 1861, 129, Cuba.
2415. *Trisotropis xenarchus* (Jordan).
 Pacific coast of Mexico to the Venados Islands near Mazatlan and to the Galapagos Archipelago.
Mycteroperca xenarcha Jordan, *Proc. Acad. Nat. Sci. Phila.*, XXXIX, 1887, 387, Galapagos Islands; Payta, Peru.
- Genus 831. MYCTEROPERCA Gill.
Mycteroperca Gill, *Proc. Acad. Nat. Sci. Phila.*, XV, 1863, 80 (*Serranus olfax* Jenyns).
2416. *Mycteroperca venadorum* Jordan and Starks. *Garlopa.*
 West coast of Mexico at Mazatlan.
Mycteroperca venadorum Jordan and Starks, in Jordan, *Proc. Calif. Acad. Sci.*, V, 1895, 446, Mazatlan, Mexico.
2417. *Mycteroperca bowersi* Evermann and Marsh.
 Culebra and Vieques Islands, Porto Rico.
Mycteroperca bowersi Evermann and Marsh, *Bull. Bur. Fish.*, XX, 1900 (1902), 158, Culebra Island.
2418. *Mycteroperca hopkinsi* Jordan and Rutter.
 Jamaica.
Mycteroperca hopkinsi Jordan and Rutter, *Proc. Acad. Nat. Sci. Phila.*, XLIX, 1897, 105, Jamaica.
2419. *Mycteroperca olfax* (Jenyns). *Yellow grouper; Gourami.*
 James Island, Galapagos Archipelago; Panama.
Serranus olfax Jenyns, *Voyage Beagle*, *Fishes*, 1840, 9, pl. 4, Galapagos Islands.
2420. *Mycteroperca rosacea* (Streets). *Cabrilla calamaria.*
 Gulf of California.
Epinephelus rosaceus Streets, *Bull. U. S. Nat. Mus.*, VII, 1877, 51, Angel Island, Gulf of California.

- 2421. *Mycteroperca falcata* (Poey).** *Scamp; Bacalao; Abadejo.*
West Indies, north to Bermuda.
Serranus falcatus Poey, Memorias, II, 1861, 138, Habana.
- 2422. *Mycteroperca phenax* Jordan and Swain.** *Scamp; Bacalao.*
Coasts of southern Florida; abundant about the keys.
Mycteroperca falcata phenax Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 363, Key West, Fla.
- 2423. *Mycteroperca calliura* Poey.**
Coast of Cuba.
Mycteroperca calliura Poey, Repertorio, I, 1867, 181, Cuba.
- 2424. *Mycteroperca tigris* (Cuvier and Valenciennes).** *Bonaci gato; Rockfish.*
West Indies, north to Bermuda.
Serranus tigris Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 325 (440), San Domingo.
Serranus felinus Poey, Memorias, II, 1861, 134, Habana.
Serranus repandus Poey, loc. cit., 135, Habana.
Trisotropis reticulatus Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 105, Barbados.
- 2425. *Mycteroperca camelopardalis* (Poey).**
West Indies.
Serranus camelopardalis Poey, Memorias, II, 1861, 132, Cuba, a bright red form, otherwise similar to *M. tigris*.
- Genus 832. *XYSTROPERCA* Jordan and Evermann.**
Xystroperca Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1181 (*Mycteroperca pardalis* Gilbert).
- 2426. *Xystroperca pardalis* (Gilbert).** *Cabrilla piritita.*
Gulf of California.
Mycteroperca pardalis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 551, La Paz Bay, Lower California.
- Genus 833. *PAREPINEPHELUS* Bleeker.**
Parepinephelus Bleeker, Systema Percarum Revisum, in Archiv. Neer. des Sci. Exet. Nat., XI, 1875, 1876, 257 (*Serranus acutirostris* Cuvier and Valenciennes = *Epinephelus ruber* Bloch).
- 2427. *Parepinephelus acutirostris* (Cuvier and Valenciennes).** *Scirenga.*
West Indies, Brazil, Mediterranean Sea, and islands of the eastern Atlantic.
? *Epinephelus ruber* ⁵⁷ Bloch, Nat. Ausl. Fische, VII, 1793, 22, pl. 330, "Japan"; probably from the Mediterranean.
Serranus acutirostris Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 212 (286), Brazil.
Serranus undulosus Cuvier and Valenciennes, loc. cit., 219 (295), Brazil.
Serranus tinca Cantraine, "Nouv. Mem. Ac. Brux., XI, 1831," Naples.
Serranus fuscus Lowe, Trans. Cambr. Philos. Soc., VI, 1838, 196, Madeira.
Cerna nebulosa Cocco, "Indice Pesci. Messina, Gen. 45, sp. 2," 1844, Messina.
Cerna macrogenis Sassi, "Deser. Genovæil Genovasato, I, 139," 1846, Genoa.
Serranus emarginatus Valenciennes, Ichth. Îles Canaries, 1839, 10, Canary Islands.
Epinephelus chalinus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 465, St. Martins.
Cerna acutirostris lata Doderlein, loc. cit., 74, Palermo.
- Genus 834. *CHORISTISTIUM* Gill.**
Chorististium Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 15 (*Liopropoma rubra* Poey).
- 2428. *Chorististium rubrum* (Poey).**
Coast of Cuba.
Liopropoma rubre Poey, Memorias, II, 1861, 418, Habana.

⁵⁷ The original type of *E. ruber* has 24 gill rakers; all others examined (Athem, Brazil) have 30 to 35; for these we retain the name *acutirostris* pending investigation.

Genus 835. LIOPROPOMA Gill.

Liopropoma Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 52 (*Perca aberrans* Poey).

2429. *Liopropoma aberrans* (Poey).

Coast of Cuba.

Perca aberrans Poey, Memorias, II, 1861, 125, Cuba.

2430. *Liopropoma longilepis* Garman.

Eastern Pacific in deep water.

Liopropoma longilepis Garman, Mem. Mus. Comp. Zool., XXIV, 1889, 47, lat. 7° 30' N., long. 78° 34' W.

Genus 836. RYPTICUS Cuvier. Soapfishes.

Rypticus Cuvier, Règne Animal, ed. 2, II, 1829, 144 (*Anthias saponaceus* Bloch and Schneider).

Smecticus Valenciennes, Ichth. Voy. *Vénus*, 1855, 305 (*S. bicolor* Valenciennes).

Eleutheractis Cope, Trans. Amer. Phil. Soc., XIV, 1871, 467 (*E. coriaceus* Cope).

Rypticus authors, corrected spelling.

2431. *Rypticus saponaceus* (Bloch and Schneider). Soapfish; Jabon; Jaboncillo.

West Indies; Pensacola to west Africa and Brazil.

Jaboncillo Parra, Difer. Piezas de Hist. Nat., 1787, 51, lam. 24, fig. 2, Habana.

Anthias saponaceus Bloch and Schneider, Syst. Ichth., 1801, 310, Habana.

2432. *Rypticus arenatus* Cuvier and Valenciennes.

West Indies and coast of Brazil; recorded from Jamaica, Trinity, Barbados, and St. Thomas.

Rypticus arenatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 48 (65), pl. 46, Brazil.

?*Rhypticus subbifrenatus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53, St. Thomas.

?*Rhypticus nigromaculatus* Steindachner, Ichth. Notiz., VI, 1867, 42, Barbados; dorsal with four spines instead of three.

2433. *Rypticus coriaceus* (Cope). Black soapfish.

West Indies; recorded from St. Martins and Jamaica.

Eleutheractis coriaceus Cope, Trans. Amer. Phil. Soc., XIV, 1870 (1871), 467, St. Martins.

2434. *Rypticus xanti* (Gill).

Pacific coast of Mexico, from Cape San Lucas to Colima and Mazatlan.

Rypticus xanti Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 250, Cape San Lucas.

2435. *Rypticus bicolor* (Valenciennes).

Galapagos Archipelago.

Smecticus bicolor Valenciennes, Voy. *Vénus*, Poissons, 1855, 307, pl. 2, fig. 2, Galapagos Archipelago.

Genus 837. PROMICROPTERUS Gill.

Promicropterus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53 (*Rhypticus maculatus* Holbrook = *Bodianus bistrispinus* Mitchill).

2436. *Promicropterus bistrispinus* (Mitchill). Soapfish.

South Atlantic coast of United States; frequent off Charleston, Pensacola, and Key West; Porto Rico; occasional as far north as Newport, R. I.

Bodianus bistrispinus Mitchill, Amer. Month. Mag. and Crit. Review, II, February, 1818, 247, Straits of Bahama.

Rypticus maculatus Holbrook, Ichth. South Carolina, Ed. I, 1855, 39, Cape Romain, S. C.

Rhypticus pituitosus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 341, Key West, Fla.

2437. *Promicropterus nigripinnis* (Gill).

Pacific coast of tropical America, Cape San Lucas to Panama.

Rhypticus nigripinnis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 53, Panama.*Rhypticus maculatus* Gill, loc. cit., XIV, 1862, 251, Cape San Lucas.*Promicropterus decoratus* Gill, loc. cit., XV, 1863, 164, Panama.**Family 195. SERRANIDÆ. Sea bass****Genus 838. PARALABRAX Girard. *Cabrillas verdes*.***Paralabrax* Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 131 (*Labrax nebulifer* Girard).**2438. *Paralabrax nebulifer* (Girard). *Johnny verde*; *Kelp bass*.**

Southern California, from Monterey to Magdalena Bay.

Labrax nebulifer Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 142, Monterey, Calif.**2439. *Paralabrax maculatofasciatus* (Steindachner). *Spotted cabrilla*.**

Pacific coast of America from Lower California to San Pedro and Mazatlan.

Serranus maculatofasciatus Steindachner, Ichth. Notizen, VII, 1868, 5, Mazatlan, Mexico.? *Serranus acanthophorus* Bocourt, Ann. Sci. Nat., X, 1870, 223, Pacific coast of Mexico.**2440. *Paralabrax humeralis* (Cuvier and Valenciennes).**

Pacific coast of South America; Panama to Juan Fernandez.

Serranus humeralis Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 183 (246), Chile.*Serranus albomaculatus* Jenyns, Zool. Beagle, Fishes, 1840, 3, pl. 2, Galapagos Archipelago.? *Serranus semifasciatus* Guichenot, in Gay, Hist. Chile, II, 1847, 151, pl. 1, fig. 2, Juan Fernandez.**2441. *Paralabrax clathratus* (Girard). *Cabrilla*; *Rock bass*.**

Coast of southern California, from San Francisco to Cedros Island.

Labrax clathratus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 143, San Diego.**Genus 839. CRATINUS Steindachner.***Cratinus* Steindachner, Ichth. Beitr., VII, 1878, 19 (*C. agassizii* Steindachner).**2442. *Cratinus agassizii* Steindachner.**

Galapagos Archipelago.

Cratinus agassizii Steindachner, Ichth. Beitr., VII, 1878, 19, Galapagos Islands.**Genus 840. CENTROPRISTES Cuvier and Valenciennes. *Black sea bass*.***Centropristes* Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 27 (36) (*C. nigricans* Cuvier and Valenciennes = *Labrus striatus* Linnæus).*Centropristis* of authors; variation in spelling.**2443. *Centropristes striatus* (Linnæus). *Black sea bass*; *Blackfish*; *Tallywag*;***Hannabill*; *Black Will*; *Black Harry*; *Black perch*; *Black bass*; *Bluefish*.

Atlantic coast of United States, Cape Ann to northern Florida.

Labrus striatus Linnæus, Syst. Nat., ed. X, 1758, 285, "America"; description very brief, but not to be referred to any other fish.*Perca atraria* Linnæus, loc. cit., ed. XII, 1766, 485, Carolina.*Perca furva* Walbaum, Artedi Pisc., 1792, 336, New York; after Schöpfung.*Coryphæna nigrescens* Bloch and Schneider, Syst. Ichth., 1801, 297,

New York.

Lutjanus trilobatus Lacépède, Hist. Nat. Poiss., IV, 1802, 246, locality unknown.*Perca varia* Mitchell, Trans. Lit. & Phil. Soc. N. Y., I, 1815, 415, pl. 3, fig. 6, New York.

2444. *Centropristes ocyurus* (Jordan and Evermann). *Gulf sea bass*.
Gulf of Mexico at Snapper Banks off Pensacola, Fla.
Serranus ocyurus Jordan and Evermann, Proc. U. S. Nat. Mus., IX,
1886, 468, Snapper Banks off Pensacola, Fla.
2445. *Centropristes rufus* Cuvier and Valenciennes. *Hogfish*.
Martinique.
Centropristes rufus Cuvier and Valenciennes, Hist. Nat. Poiss., III,
1829, 35 (47), Martinique.
- Genus 841. **TRILOBURUS** Gill.
Triloburus Gill, Cat. Fish. East Coast U. S., Supplement to Proc. Acad.
Nat. Sci. Phila., XIII, 1861, 30 (*Perca trifurca* Storer=*Perca philadel-
phica* Linnæus).
2446. *Triloburus philadelphicus* (Linnæus). *Rock sea bass; Redfish*.
Coast of South Carolina.
Perca philadelphica Linnæus, Syst. Nat., ed. X, 1758, 291, America.
Perca trifurca Linnæus, loc. cit., ed. XII, 1766, 489, Carolinas.
Lutjanus tridens Lacépède, Hist. Nat. Poiss., IV, 1802, 246, Carolinas.
- Genus 842. **DIPLECTRUM** Holbrook. *Squirrelfishes*.
Diplectrum Holbrook, Ichth. South Carolina, ed. I, 1855, 32 (*Serranus
fascicularis* Cuvier and Valenciennes=*Perca formosa* Linnæus).
Haliperca Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236, (*Serranus
bivittatus* Cuvier and Valenciennes=*Serranus radialis* Quoy and
Gaimard, and other species).
Paraserranus Bleeker, Verh. Akad. Amst., XIV, 1873, 6 (*P. hasselti*
Bleeker).
- Subgenus **HALIPERCA** Gill.
2447. *Diplectrum radiale* (Quoy and Gaimard). *Aguavina*.
Cuba to Brazil.
Serranus radialis Quoy and Gaimard, Voyage *Uranie*, 1824, 316, Rio
Janeiro.
Serranus bivittatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828,
179 (241), Martinique.
Centropristes ayresi Steindachner, Ichth. Notizen, VII, 1868, 1, pl. 1,
fig. 1, Santos, Brazil.
2448. *Diplectrum pacificum* Meek and Hildebrand.
Panama.
Diplectrum radiale Gilbert and Starks, Memoir Calif. Acad. Sci., IV,
1904, 97 (not of Quoy and Gaimard).
Diplectrum pacificum Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., XV, Apr. 15, 1925, 477, Pl. XLVI, fig. 2, Naos Island, Panama.
2449. *Diplectrum macropoma* (Günther).
Pacific coast of tropical America.
Centropristis macropoma Günther, Proc. Zool. Soc. Lond., 1864, 145,
Panama.
2450. *Diplectrum sciurus* Gilbert.
Gulf of California.
Diplectrum sciurus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 550,
Gulf of California at Albatross stations Nos. 3014, 3021, 3026, and
3033, all in shallow water.
2451. *Diplectrum euryplectrum* Jordan and Bollman.
Coast of Colombia, southwest of Panama.
Diplectrum euryplectrum Jordan and Bollman, Proc. U. S. Nat. Mus.,
XII, 1889, 157, Pacific Ocean, off coast of Colombia.
- Subgenus **DIPLECTRUM** Holbrook.
2452. *Diplectrum formosus* (Linnæus). *Squirrelfish; Sandfish; Serrano*.
West Indies; common on the south Atlantic and Gulf coasts of the
United States, from Charleston south to Montevideo.
Perca formosa Linnæus, Syst. Nat., ed. XII, 1766, 488, Carolinas.
Epinephelus striatus Bloch, Naturgesch. Ausl. Fische, VII, 1793, 20,
Jamaica (not *Anthias striatus* Bloch).
Serranus radians Quoy and Gaimard, Voy. *Uranie*, Poiss., 1824, 313,
pl. 58, fig. 2, Rio de Janeiro.

Serranus irradians Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 181 (244), Montevideo.
Serranus fascicularis Cuvier and Valenciennes, loc. cit., 182 (245), pl. 30, Brazil.

Genus 843. PRIONODES Jenyns.

Prionodes Jenyns, Voy. *Beagle*, Fishes, 1842, 46 (*P. fasciatus* Jenyns).

2453. *Prionodes æquidens* (Gilbert).

Gulf of California.

Serranus æquidens Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 61, Gulf of California at Albatross station No. 2996, in 112 fathoms.

2454. *Prionodes fuscus* (Poey).

Cuba.

Centropristes fuscus Poey, Memorias, II, 1861, 342, Cuba.

2455. *Prionodes phæbe* (Poey). *Phæbe*.

West Indies, north to Pensacola, Fla.

Serranus phæbe Poey, Memorias, I, 1852, 55, pl. 2, fig. 3, Cuba.

2456. *Prionodes baldwini* Evermann and Marsh.

Porto Rico.

Prionodes baldwini Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (1900), 353, Culebra and Vieques Islands.

2457. *Prionodes fasciatus* Jenyns.

Pacific coast of Mexico, Cape San Lucas to Galapagos Islands.

Prionodes fasciatus Jenyns, Voy. *Beagle*, Fishes, 1840, 46, Chatham Island, Galapagos Archipelago.

Serranus psittacinus Valenciennes, Voy. *Vénus*, Poiss., 1855, 299, pl. 1, fig. 1, Galapagos Islands.

Serranus calopteryx Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 350, Mazatlan.

2458. *Prionodes bulleri* (Boulenger).

Coast of Jalisco, western Mexico.

Serranus bulleri Boulenger, Cat., I, 1895, 288, Las Peñas, Jalisco, Mexico.

2459. *Prionodes deweegeeri* (Metzelaar).

Caribbean Sea.

Serranus (Paralabrax) deweegeeri Metzelaar, Trop. Atl. Vissehen, 1919, 52, fig. 20, Guanta, coast of Venezuela.

2460. *Prionodes tabacaria* (Cuvier and Valenciennes). *Jacome*; *Bout de tabac*.

West Indies.

Centropristes tabacarius Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 33 (44), Martinique.

Serranus jacome Poey, Memorias, I, 1852, 57, pl. 2, fig. 1, Cuba.

2461. *Prionodes tigrinus* (Bloch).

West Indies.

Holocentrus tigrinus Bloch, Naturgesch. Ausl. Fische, IV, 1790, 77, East Indies; after Seba, Thesaurus, III, Pl. XXVII, fig. 5.

Serranus præstigiator Poey, Memorias, I, 1852, 58, pl. 2, fig. 2, Habana.

?*Centropristis annularis* Günther, Shore Fishes, *Challenger* Rept., Zool., I, pt. 6, 1880, 6, pl. 1, fig. C, Pernambuco.

2462. *Prionodes flavescens* (Cuvier and Valenciennes).

Martinique.

Serranus flavescens Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 380 (506), Martinique.

Genus 844. MENTIPERCA Gill.

Mentiperca Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236 (*Serranus luciopercanus* Poey).

2463. *Mentiperca luciopercana* (Poey).

Coast of Cuba.

Serranus luciopercanus Poey, Memorias, I, 1852, 56, pl. 9, fig. 1, Cuba.

Genus 845. CENTRISTHMUS Garman.

Centristhmus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 47 (*Centristhmus signifer* Garman).

2464. *Centrithmus signifer* Garman.

Off Bay of Panama in deep water.

Centrithmus signifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 48, Pl. LXIX, off Bay of Panama.**Genus 846. *DULES* Cuvier.***Dules* Cuvier, Règne Animal, ed. 2, II, 1829, 147 (*Dules auriga* Cuvier and Valenciennes).*Eudulus* Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 264 (*Dules auriga* Cuvier and Valenciennes; *Dulus* being a genus of birds).**2465. *Dules auriga* Cuvier and Valenciennes. *Coachman*; *Charioteer*.**

Coasts of Brazil and Uruguay, and occasionally northward.

Dules auriga Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 83 (112), pl. 51, Brazil.*Centropristis brasiliensis* Brissot de Barneville, Révue Zoologique, 1847, 131, Bahia.**Genus 847. *CALLIDULUS* Fowler.***Callidulus* Fowler, Proc. Acad. Nat. Sci. Phila., LIX, 1907, 265 (*Centropristes subligarius* Cope).**2466. *Callidulus flaviventris* Cuvier and Valenciennes. *Grassy ground rock-fish*.**

Tropical America, Charleston to Brazil.

Dules flaviventris Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 85, Brazil.*Centropristis dispilurus* Günther, Proc. Zool. Soc. Lond., 1867, 99, Trinidad.*Centropristis subligarius* Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 120, Pensacola, Fla.**Genus 848. *PARANTHIAS* Guichenot.***Brachyrhinus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 286 (*Serranus creolus* Cuvier and Valenciennes).*Paranthias* Guichenot, Ann. Soc. Linn. Maine-et-Loire, X, 1868 (*Serranus furcifer* Cuvier and Valenciennes=*Serranus creolus* Cuvier and Valenciennes).*Creolus* Jordan and Gilbert, Synopsis, Bull. U. S. Nat. Mus., XVI, 1882, XXXVI (withdrawn in the text) (*Serranus furcifer* Cuvier and Valenciennes).**2467. *Paranthias furcifer* (Cuvier and Valenciennes). *Rabirubia de lo alto*; *Creolefish*.**

Both coasts of tropical America, Cuba to Brazil, Cape San Lucas to the Galapagos Archipelago.

Serranus furcifer Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 196 (264), Brazil.*Serranus creolus* Cuvier and Valenciennes, loc. cit., 197 (265), Martinique; San Domingo.*Corvina oxyptera* DeKay, New York Fauna: Fishes, 1842, 77, Pl. XXX, fig. 96, locality unknown.*Serranus colonus* Valenciennes, Voy. Vénus, Zool., 1855, 300, pl. 2, fig. 1, Galapagos Islands.**Genus 849. *OCYANTHIAS* Jordan and Evermann.***Ocyanthias* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1227 (*Aylopon martinicensis* Guichenot).**2468. *Ocyanthias martinicensis* (Guichenot).**

West Indies.

? *Aylopon martinicensis* Guichenot, Anthiani, Ann. Linn. Soc., X, 1868, Martinique.**Genus 850. *HYPOPLECTRUS*⁵³ Gill. *Vacas*.***Hypoplectrus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236 (*Plectropoma puella* Cuvier and Valenciennes=variety of *Perca unicolor* Walbaum).⁵³ The West Indian forms correctly referred to this species fall into several groups here provisionally designated as subspecies of the form first named (*H. unicolor*), apparently differing only in color. These range from mottled olive and orange to intense indigo blue.

2469. *Hypoplectrus unicolor* (Walbaum). *Vaca; Petitnègre*.
West Indies, north to Florida Keys.
Perca unicolor Walbaum, Artedi Piscium, III, 1792, 352, locality unknown.
Plectropoma ephippium Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 307, (408), locality unknown.
Hypoplectrus maculiferus Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1871, 78, Habana.
2470. *Hypoplectrus unicolor puella* (Cuvier and Valenciennes). *Vaca*.
Martinique.
Plectropoma puella Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 305 (405), pl. 37, Martinique.
2471. *Hypoplectrus unicolor vitulinus* (Poey).
Cuba.
Plectropoma vitulinum Poey, Memorias, I, 1852, 68, Cuba.
2472. *Hypoplectrus unicolor pinnivarius* (Poey).
Habana.
Hypoplectrus pinnivaria Poey, Synopsis, 1868, 291, Habana.
2473. *Hypoplectrus unicolor guttavarius* (Poey).
Cuba.
Plectropoma guttavarium Poey, Memorias, I, 1852, 70, Cuba.
Plectropoma melanorhina Guichenot, Poissons, in Ramon de la Sagra, Hist. Cuba, 1853, 18, pl. 1, fig. 1, Cuba.
2474. *Hypoplectrus unicolor gummigutta* (Poey).
Cuba.
Plectropoma gummigutta Poey, Memorias, I, 1852, 70, Cuba.
2475. *Hypoplectrus unicolor crocotus* (Cope).
West Indies.
Plectropoma crocata Cope, Trans. Amer. Phil. Soc., XIV, 1870 (1871), 466, St. Martins, West Indies.
2476. *Hypoplectrus unicolor aberrans* (Poey).
Cuba.
Hypoplectrus aberrans Poey, Synopsis, 1868, 291, Cuba.
2477. *Hypoplectrus unicolor accensus* (Poey).
Cuba.
Plectropoma accensum Poey, Memorias, I, 1852, 72, Cuba.
2478. *Hypoplectrus unicolor affinis* (Poey).
Cuba.
Plectropoma affine Poey, Memorias, II, 1861, 427, Cuba.
2479. *Hypoplectrus unicolor chlorurus* (Cuvier and Valenciennes).
Martinique.
Plectropoma chlorurum Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 306 (406), Martinique.
2480. *Hypoplectrus unicolor nigricans* (Poey).
Cuba.
Plectropoma nigricans Poey, Memorias, I, 1852, 71, Cuba.
2481. *Hypoplectrus unicolor indigo* (Poey). *Añil*.
Cuba.
Plectropoma indigo Poey, Memorias, I, 1852, 69, pl. 3, fig. 1, Cuba.
2482. *Hypoplectrus unicolor bovinus* (Poey).
Cuba.
Plectropoma bovinum Poey, Memorias, I, 1852, 69, Cuba.
2483. *Hypoplectrus unicolor gemma* Goode and Bean.
Florida Keys; known from one specimen from Garden Key, Fla.
Hypoplectrus gemma Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 428, Garden Key, Fla.
2484. *Hypoplectrus lamprurus* (Jordan and Gilbert).
Panama.
Serranus lamprurus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 322, Panama.

Genus 851. ANTHIAS Bloch. Barbiere.*Anthias* Bloch, Nat. Ausl. Fische, VI, 1792, 97 (*Labrus anthias* L.).*Aylopon* Rafinesque, Caratteri, 1810, 52, (*Labrus anthias* L.; the name *Anthias* said to be preoccupied).**2485. *Anthias tenuis* Nichols.**

Bermuda.

Anthias tenuis Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 60, Bermudas.**Genus 852. HEMIANTHIAS Steindachner.***Hemianthias* Steindachner, Ichth. Beitr., I, 1874, 4 (*Anthias* (*Hemianthias*) *peruanus* Steindachner).**2486. *Hemianthias peruanus* (Steindachner).**

Coasts of Peru and Chile, occasionally northward; off the coast of Lower California.

Anthias (*Hemianthias*) *peruanus* Steindachner, Ichth. Beitr., I, 1874, 4, Payta; Trujillo.**2487. *Hemianthias vivanus* (Jordan and Swain).**

Gulf of Mexico; Snapper Banks between Pensacola and Tampa, Fla.

Anthias vivanus Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 544, from stomach of a red snapper taken at the Snapper Banks off Pensacola, Fla.**Genus 853. PRONOTOGRAMMUS Gill.***Pronoto grammus* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 80 (*P. multifasciatus* Gill).**2488. *Pronoto grammus multifasciatus* Gill.**

Off Bay of Panama; Cape San Lucas, Lower California.

Pronoto grammus multifasciatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 81, Cape San Lucas, Lower California.**2489. *Pronoto grammus eos* Gilbert.**

Pacific coast of tropical America.

Pronoto grammus eos Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 62, west coast of Mexico, at Albatross station 2996, in 112 fathoms.**Family 196. PSEUDOCROMIDÆ****Genus 854. GRAMMA Poey.***Gramma* Poey, Synopsis, 1868, 296 (*G. loreto* Poey).**2490. *Gramma loreto* Poey.**

Matanzas, Cuba; only the type known.

Gramma loreto Poey, Synopsis, 1868, 296, Matanzas, Cuba.**Family 197. RHEGMATIDÆ****Genus 855. RHEGMA Gilbert.***Rhegma* Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 3169 (*Rhegma thaumasium* Gilbert).**2491. *Rhegma thaumasium* Gilbert.**

Panama.

Rhegma thaumasium Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 3170, Panama.**Family 198. PRIACANTHIDÆ. Big-eyes or catalufas****Genus 856. PRIACANTHUS Cuvier.***Priacanthus* Cuvier, Règne Animal, ed. 1, 1817, 281 (*P. macrophthalmus* Cuvier).**2492. *Priacanthus cruentatus* (Lacépède). Big-eye; Catalufa.**Tortugas; West Indies to St. Helena and the Canaries (*Priacanthus carolinus* Lesson), a species very similar or identical in Hawaii and the western Pacific.*Labrus cruentatus* Lacépède, Hist. Nat. Poiss., III, 1802, 522, Martinique; from a copy by Aubriet of a plate made by Plumier at Martinique.

Priacanthus cepedianus Desmarest; Prém. Dec. Ichthy., 1823, 9, pl. 1, Habana.

?*Priacanthus carolinus* Lesson, Voy. Coquille, 1826, 204, Caroline Islands.

2493. *Priacanthus arenatus* Cuvier and Valenciennes. *Catalufa*; *Big-eye*. West Indies, south to Brazil; occasionally northward in the Gulf Stream to Newport and Woods Hole, Mass.

Catalufa Parra, Dif. Piezas Hist. Nat., 1787, 20, Habana.

Priacanthus arenatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 75 (101), Brazil.

Priacanthus fulgens Lowe, Trans. Zool. Soc. Lond., II, 1839, 174, Madeira.

Priacanthus catalufa Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 182, Habana.

Genus 857. **PSEUDOPRIACANTHUS** Bleeker.

Pseudopriacanthus Bleeker, Versl. Ak. Wet. Amsterdam, 1869 (2), 241 (*Priacanthus niphonius* Cuvier and Valenciennes).

2494. *Pseudopriacanthus altus* (Gill).

West Indies and the Gulf Stream.

Priacanthus altus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 732, Narragansett Bay.

2495. *Pseudopriacanthus serrula* (Gilbert).

Pacific coast of Colombia.

Priacanthus serrula Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 450, Albatross station, 2797, west coast of Colombia.

Family 199. **PEMPHERIDÆ**. Deep-water catalufas

Genus 858. **PEMPHERIS** Cuvier.

Pempheris Cuvier, Règne Anim., ed. 2, II, 1829, 195 (*Kurtus argenteus* Bloch and Schneider = *Pempheris touca* Cuvier).

2496. *Pempheris schomburgkii* Müller and Troschel.

Barbados and Cuba.

Pempheris schomburgkii Müller and Troschel, in Schomburgk's History of Barbados, 1848, 669, Barbados.

2497. *Pempheris mülleri* Poey. *Catalufa de lo alto*.

West Indies to Brazil.

Pempheris mülleri Poey, Memorias, II, 1861, 203, Cuba.

2498. *Pempheris poeyi* Bean.

Cuba.

Pempheris poeyi Bean, Proc. U. S. Nat. Mus., VIII, 1885, 229, Habana.

2499. *Pempheris mexicanus* Cuvier and Valenciennes.

Pacific coast of Mexico, Acapulco.

Pempheris mexicana Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 230 (308), Acapulco, Mexico.

Family 200. **LOBOTIDÆ**. Flashers or tripletails

Genus 859. **LOBOTES** Cuvier.

Lobotes Cuvier, Règne Anim., ed. 2, II, 1829, 177 (*L. erate* Cuvier and Valenciennes).

2500. *Lobotes surinamensis* (Bloch). *Flasher*; *Tripletail*; *Dormeur*; *Black perch*; *Black grunt*.

Atlantic coast from Cape Cod to Surinam; Mediterranean; Japan.

Holocentrus surinamensis Bloch, Naturgesch. Ausl. Fische, IV, 1790, 98, Surinam.

Bodianus triourus Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 418, Powells Hook, N. J.

Lobotes somnolentus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 244 (324), pl. 126, San Domingo.

Lobotes erate Cuvier and Valenciennes, loc. cit., 322, Pondicherry.

Lobotes auctorum Günther, Cat., I, 1859, 338, Cuba; Calcutta; China.

Genus 860. **VERRUGATO** Jordan.

Verrugato Jordan, Classn. Fishes, 1923, 195 (*Lobotes pacificus* Gilbert).

2501. *Verrugato pacificus* (Gilbert). *Berrugate*.

Panama.

Lobotes pacificus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2857, Panama.**Family 201. XENICHTHYIDÆ****Genus 861. XENICHTHYS Gill.***Xenichthys* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 82 (*X. xanti* Gill).**2502. *Xenichthys xanti* Gill.**

Pacific coast of tropical America, from Cape San Lucas to Panama.

Xenichthys xanti Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 82, Cape San Lucas.*Xenichthys xenops* Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 325, Panama.**Genus 862. XENISTIUS Jordan and Gilbert.***Xenistius* Jordan and Gilbert, Synopsis, 1883, 920 (*Xenichthys californiensis* Steindachner).**2503. *Xenistius californiensis* (Steindachner).**

Pacific coast of America, from San Diego southward to Guaymas, Mexico.

Xenichthys californiensis Steindachner, Ichth. Beitr., III, 1875, 3, San Diego.**Family 202. HOPLOPAGRIDÆ****Genus 863. HOPLOPAGRUS Gill.***Hoplopagrus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 78; and 1862, 253 (*Hoplopagrus guntheri* Gill.)**2504. *Hoplopagrus guntheri* Gill. *Pargo*.**

Pacific coast of tropical America, from Guaymas to Panama.

Hoplopagrus guntheri Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 78, and 1862, 253, Cape San Lucas, Lower California.**Family 203. LUTIANIDÆ. Snappers****Genus 864. LUTIANUS Bloch.***Lutianus* Bloch, Nat. Ausl. Fische, IV, 1790, 105 (*L. lutianus* Bloch).*Diacope* Cuvier, Mém. Mus. Hist. Nat. Paris, I, 1816, 360 (*Holocentrus bengalensis* Bloch, preoccupied).*Mesoprion* Cuvier (Règne Animal, 143), Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 441 (*L. lutianus* Bloch).*Genyoroge* Cantor, Jour. Roy. Asiat. Soc. Bengal, XVIII, 1849, 12 (*Diacope sebæ* Cuvier and Valenciennes).*Neomænis* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858 (1859), 167 (*Lobotes emarginatus* Baird and Girard = *Labrus griseus* Linnaeus).*Hypoplites* Gill, loc. cit., XIV, 1862, 236 (*Mesoprion retrospinis* Cuvier and Valenciennes).*Evoplites* Gill, loc. cit., 236 (*Mesoprion pomacanthus* Bleeker, young of *L. kasmira*).*Lutjanus* Bloch and later writers, change of spelling; the word from the Indian "Lutjang."**Subgenus EVOPLITES Gill.****2505. *Lutianus viridis* (Valenciennes).**

Rocky islands of the eastern Pacific; known from Galapagos, Tres Marias, and Revillagigedo Islands.

Diacope viridis Valenciennes, Voy. *Vénus*, 1855, 303, pl. 1, fig. 2 (very bad), Galapagos Islands.**Subgenus NEOMÆNIS Girard.****2506. *Lutianus jordani* (Gilbert)**

Panama; Cocos Island.

Neomænis jordani Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1252, Panama.

- 2507. *Lutianus novemfasciatus* (Gill).** *Pargo prieto; Pargo moreno; Pargo negro.*
Pacific coast of tropical America; Cape San Lucas; Guaymas; Mazatlan; Punta Arenas; San Blas; Panama.
Lutjanus novemfasciatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 251, Cape San Lucas, Lower California.
Mesoprius pacificus Bocourt, Ann. Sci. Nat. Paris, X, 1868, 223, Tauesco, Pacific coast of Guatemala.
Lutjanus prieto Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 353, Mazatlan.
- 2508. *Lutianus cyanopterus* (Cuvier and Valenciennes).** *Cubera.*
West Indies to Brazil.
Mesoprius cyanopterus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 357 (472), Brazil.
? *Mesoprius pargus* Cuvier and Valenciennes, loc. cit., 358 (473), Porto Rico.
Lutjanus cubera Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1871, 75, Cuba.
Lutjanus dentatus A. Duméril in Vaillant and Bocourt, Misc. Sci. Mex. Poiss., 1881, 125, Brazil.
- 2509. *Lutianus griseus* (Linnaeus).** *Gray snapper; Mangrove snapper; Caballero; Lawyer.*
West Indies; ranging from New York to Brazil.
Turdus pinis branchialibus carens Catesby, Hist. Carolinas, II, 1743, 5, pl. 9, Bahamas.
Labrus griseus Linnaeus, Syst. Nat., ed. X, 1758, 283, after Catesby.
Caballero Parra, Deser. Dif. Piezas, Hist. Nat., 1787, 52, pl. 25, fig. 1, Habana.
Sparus tetracanthus Bloch, Nat. Ausl. Fische, 1791, 116, Martinique.
Anthias caballero Bloch and Schneider, Syst. Ichth., 1801, 310, Cuba; after Parra.
Bodianus vivanet Lacépède, Hist. Nat. Poiss., IV, 1802, pl. 4, fig. 3, Martinique.
Mesoprius griseus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 355 (469), San Domingo, not after Linnaeus.
Lobotes emarginatus Baird and Girard, 9th Smith. Rept., 1854 (1855), 332, Beaseley Point, N. J.
Lutjanus stearnsi Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 179, Pensacola, Fla.
- 2510. *Lutianus jocú* (Bloch and Schneider).** *Dog snapper; Jocú.*
West Indies, north to Florida Keys, south to Bahia; one young recorded from Woods Hole, Mass. (Nichols and Breder).
Anthias jocú Bloch and Schneider, Syst. Ichth., 1801, 310, Cuba; after Parra.
Jocú Parra, Deser. Dif. Piezas, Hist. Nat., I, 1787, 53, pl. 25, fig. 2, Cuba.
Mesoprius litura Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 353 (467), Cayenne; St. Thomas.
- 2511. *Lutianus apodus* (Walbaum).** *Schoolmaster; Cají.*
West Indies, north to Key West, south to Bahia; young casual at Woods Hole, Mass. (Nichols and Breder).
Perca apoda Walbaum, Artedi Piscium, 1792, 351; based on the "Schoolmaster" of Catesby, which, in the very bad plate, lacks the pectoral fin.
Caris Parra, Deser. Dif. Piezas, Hist. Nat., 1787, 14, pl. 8, fig. 2, Habana.
Sparus caxis Bloch and Schneider, Syst. Ichth., 1801, 284, Habana; after Parra.
Bodianus striatus Bloch and Schneider, loc. cit., 1801, 335, pl. 65, West Indies, misprinted *albostratus* and *fasciatus*.
Lutjanus acutirostris Desmarest, Prem. Dec. Ichth., 1823, 12, pl. 3, Cuba.
Mesoprius cynodon Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 351 (465), Martinique, San Domingo.
Mesoprius linea Cuvier and Valenciennes, loc. cit., 354 (468), Cuba; San Domingo.
Mesoprius flavescens Cuvier and Valenciennes, loc. cit., 357 (472), Martinique.

2512. *Lutianus lutjanoides* (Poey).
Cuba.
Ocyurus lutjanoides Poey, Ann. Lyc. Nat. Hist., IX, 1870, 319, Cuba;
known from one specimen, suspected to be a hybrid between *Ocyurus*
chrysurus and *Lutianus apodus*.
2513. *Lutianus brachypterus* (Cope).
Bahama Islands.
One specimen known.
Lutjanus brachypterus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 470,
New Providence, Bahama Islands; perhaps a hybrid of *Lutianus*
griseus and *L. synagris*.
2514. *Lutianus argentiventris* (Peters). *Pargo amarillo*.
Pacific coast of tropical America; Galapagos and Cocos Islands.
Mesoprion argentiventris Peters, Berlin Monatsber., 1869, 704, Mazatlan.
2515. *Lutianus hastingsi* (Bean). *Bermuda silk snapper*.
Bermuda.
Neomænis hastingsi Bean, Bull. Amer. Mus. Nat. Hist., X, Art. III,
1898, 45, Bermuda.
2516. *Lutianus buccanella* (Cuvier and Valenciennes). *Sesi de lo alto*;
Orielle noire; *Boucanello*; *Blackfin snapper*.
West Indies; Habana.
Mesoprion buccanella Cuvier and Valenciennes, Hist. Nat. Poiss., II,
1828, 344 (455), Martinique.
Mesoprion caudanotatus Poey, Memorias, I, 1854, pl. 3, fig. 3, 440, Cuba.
2517. *Lutianus vivanus* (Cuvier and Valenciennes). *Pargo de lo alto*; *Silk*
snapper; *West Indian snapper*.
West Indies; Habana.
Mesoprion vivanus Cuvier and Valenciennes, Hist. Nat. Poiss., II,
1828, 343 (454), Martinique.
Mesoprion profundus Poey, Memorias, II, 1861, 150, Cuba.
Lutjanus torridus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 469, St.
Kitts.
Lutjanus purpureus Poey, Enumeratio, 1875, 29.
2518. *Lutianus campechanus*⁵⁹ (Poey). *Red snapper*; *Mexican snappers*;
Pargo guachenarigo.
Long Island to Yucatan and Texas; a valued food fish.
Mesoprion campechanus Poey, Memorias, II, 1861, 149, Campeche.
2519. *Lutianus blackfordii* Goode and Bean. *Pensacola snapper*.
Lutjanus blackfordii Goode and Bean, Proc. U. S. Nat. Mus., I, 1878,
176, Pensacola, Fla.
2520. *Lutianus analis* (Cuvier and Valenciennes). *Muttonfish*; *Pargo*; *Pargo*
criollo.
West Indies; Pensacola to Brazil, rarely north to Woods Hole, common
and valued.
Anthias quartus rondeleti (the muttonfish) Catesby, Nat. Hist. Carolina,
II, 1743, 25, pl. 25, Bahamas.
Mesoprion analis Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828,
341 (452), San Domingo.
Mesoprion sobra Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828,
342 (453), Martinique.
Mesoprion isodon Cuvier and Valenciennes, loc. cit., IX, 1833, 328 (443),
San Domingo.
Mesoprion rosaceus Poey, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, 317,
Cuba.
2521. *Lutianus colorado* (Jordan and Gilbert). *Pargo colorado*.
Pacific coast of Mexico, Guaymas to Panama.
Lutjanus colorado Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
338, name only, 351, 355, Mazatlan, Mexico.
2522. *Lutianus guttatus* (Steindachner). *Flamenco*.
Pacific coast of Mexico, from Guaymas to Panama.
Mesoprion guttatus Steindachner, Ichthyol. Notizen, IX, 1869, 18, pl. 8,
Mazatlan, Mexico.

⁵⁹ The common red snapper is here admitted provisionally as distinct from the Brazilian *Lutianus aya* from which it is said by Hildebrand to differ tangibly.

2523. *Lutianus synagris* (Linnaeus). *Lane snapper*; *Biajaiba*; *Redtail snapper*. West Indies; Florida Keys to Colon and Brazil.
Sparus synagris Linnaeus, Syst. Nat., Ed. X, 1758, 280, Carolinas; after Catesby.
Salpa purpurascens variegata (Lane snapper) Catesby, Nat. Hist. Carolina, II, 1743, 17, pl. 17, Bahamas.
Sparus vermicularis Bloch and Schneider, Syst. Ichth., 1801, 275, Martinique, on a drawing by Plumier.
? *Lutjanus aubrieti* Desmarest, Prem. Dec. Ichth., 1823, 17, pl. 2, Cuba.
Mesoprion uninotatus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 339 (449), pl. 39, San Domingo; Martinique.
2524. *Lutianus ambiguus* (Poey).
Cuba.
Mesoprion ambiguus Poey, Memorias, II, 1861, 152, pl. 12, fig. 4; pl. 13, fig. 8; Habana; two specimens known; suspected to be a hybrid of *Lutianus synagris* and *Ocyurus chrysurus*.
2525. *Lutianus mahogoni* (Cuvier and Valenciennes). *Ojanco*; *Mahogany snapper*.
West Indies; Habana.
Mesoprion mahogoni Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 338 (447), Martinique.
Mesoprion ricardi Cuvier and Valenciennes, loc. cit., 339 (447), Martinique? No locality given.
Mesoprion ojanco Poey, Memorias, II, 1861, 150, pl. 13, fig. 10, Cuba.
2526. *Lutianus megalophthalmus* (Evermann and Marsh).
Porto Rico.
Neomanis megalophthalmus Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900 (1902), 177, Puerto Real, Porto Rico.
- Genus 865. **RAIZERO** Jordan and Fesler.
Raizero Jordan and Fesler, Rept. U. S. Fish. Com., XVII, 1889 (1893), 438 (*Mesoprion aratus* Günther).
2527. *Raizero aratus* (Günther). *Pargo de raizero*.
Pacific coast of tropical America.
Mesoprion aratus Günther, Proc. Zool. Soc. Lond., 1864, 145, Panama; Chiapam.
- Genus 866. **RABIRUBIA** Jordan and Fesler.
Rabirubia Jordan and Fesler, Rept. U. S. Fish Com., XVII, 1889 (1893), 438 (*Mesoprion inermis* Peters).
2528. *Rabirubia inermis* (Peters).
Pacific coast of America from Mazatlan to Panama.
Mesoprion inermis Peters, Berliner Monatsber., 1869, 705, Mazatlan, Mexico.
- Genus 867. **OCYURUS** Gill. *Rabirubias*.
Ocyurus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 236 (*Sparus chrysurus* Bloch).
2529. *Ocyurus chrysurus* (Bloch). *Yellowtail*; *Rabirubia*.
West Indies, southern Florida to Brazil; single specimen recorded at Woods Hole, Mass.
Sparus chrysurus Bloch, Nat. Ausl. Fische, V, 1791, 28, Brazil; after Maregrave.
Acara pilamba Maregrave, Hist. Brasil., 1648, 155, Brazil.
Rabirubia Parra, Deser. Dif. Piezas, Hist. Nat., 1787, 42, pl. 20, fig. 1, Cuba.
Anthias rabirubia Bloch and Schneider, Syst. Ichth., 1801, 309, Cuba; after Parra.
Sparus semiluna Lacépède, Hist. Nat. Poiss., IV, 1802, 141, Martinique.
Mesoprion aeneovittatus Agassiz, Spix, Pisc. Brasil., 1829, 121, pl. 66, Brazil.
Ocyurus rijgersmaei Cope, Trans. Amer. Phil. Soc., XIV, 1871, 468, fig. 4, St. Kitts.
- Genus 868. **RHOMBOPLITES** Gill.
Rhomboplites Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Centropistis aurorubens* Cuvier and Valenciennes).

2530. *Rhomboplites aurorubens* (Cuvier and Valenciennes). *Capon de lo*

West Indies, north to Charleston, south to Rio Janeiro.

Centropristis aurorubens Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 34 (45), Brazil, Martinique, and San Domingo.

Mesopriion elegans Poey, Memorias, II, 1861, 153, Cuba.

Apriion criommus Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, 142, Pensacola, Fla.

Genus 869. *TROPIDINIUS* Gill.

Tropidinius Gill, in Poey, Synopsis, 1868, 296 (*Mesopriion arnillo* Poey = *Apsilus dentatus* Guichenot).

2531. *Tropidinius dentatus* (Guichenot). *Arnillo*.

West Indies: Habana.

Apsilus dentatus Guichenot, in Ramon de la Sagra, Hist. Cuba, Poiss., 1853, 29, pl. 1, fig. 2, Habana.

Mesopriion arnillo Poey, Memorias, II, 1861, 154, Cuba.

Genus 870. *PRISTIPOMOIDES* Bleeker.

Pristipomoides Bleeker, Tijdschr. Ned. Ind., III, 1852, 574 (*Pristipomoides typus* Bleeker).

Platyinius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 237 (*Mesopriion vorax* Poey = *Centropristis macrophthalmus* Müller and Troschel).

Boweria Jordan and Evermann, Bull. U. S. Fish Com., XXII, 1902 (1903), 182 (*B. virescens* Jordan and Evermann).

Subgenus *PLATYINIUS* Gill.2532. *Pristipomoides macrophthalmus* (Müller and Troschel). *Vorax*.

West Indies, Habana.

Centropristis macrophthalmus Müller and Troschel, in Schomburgk, Hist. Barbados, 1848, 666, Barbados.

Mesopriion vorax Poey, Memorias, II, 1861, 151, Cuba.

Genus 871. *ETELIS* Cuvier and Valenciennes.

Etelis Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 93 (127) (*Etelis carbunculus* Cuvier and Valenciennes, an East Indian species).

Elastoma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 202 (*Etelis oculatus* Cuvier and Valenciennes).

Hesperanthias Lowe, Fishes of Madeira, 1843, 14 (*Serranus oculatus* Cuvier and Valenciennes).

Macrops Duméril, Mém. Acad. Sci. Paris, XXVII, 1856, 279 (*Serranus oculatus* (oculatus) Cuvier and Valenciennes).

2533. *Etelis oculatus* ^a (Cuvier and Valenciennes). *Cachucho*.

Warm seas; West Indies to Madeira; Hawaii.

Etelis carbunculus Cuvier and Valenciennes, Hist. Nat. Poiss., II, 1828, 94 (127), pl. 18, Seychelles Archipelago.

Serranus oculatus Cuvier and Valenciennes, loc. cit., II, 198 (266), pl. 32, Martinique.

?*Etelis eivurus* Jordan and Evermann, Bull. U. S. Fish Com., XXII, 1902, 142, Hawaii.

Genus 872. *ETELIDES* Jordan and Thompson.

Etelides Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 241 (*Anthias aquilonaris* Goode and Bean).

2534. *Etelides aquilonaris* (Goode and Bean).

Gulf of Mexico; Gulf Stream near Carolina coast.

Anthias aquilonaris Goode and Bean, Oceanic Ichth., 1895, 238, Gulf of Mexico.

Family 204. *VERILIDÆ*Genus 873. *VERILUS* Poey.

Verilus Poey, Memorias, II, 1861, 124 (*V. sordidus* Poey).

2535. *Verilus sordidus* Poey. *Escolar chino*.

West Indies.

Verilus sordidus Poey, Memorias, II, 1861, 125, pl. 12, fig. 6, Cuba.

^a This white dimorphous and brilliantly colored fish seems to be of a single species throughout the warm seas. We let the American species stand, pending investigation, though we can not detect any difference from the common *etivurus*, Hawaii, and *carbunculus* of Japan.

Family 205. HÆMULIDÆ

Genus 874. HÆMULON Cuvier. *Roncos or grunts.*

Diabasis Desmarest, Prem. Décade Ichth., 1823, 34 (*D. parra* Desmarest; name preoccupied in beetles).

Hæmulon Cuvier, Règne Anim., ed. 2, II, 1829, 175 (*elegans*, etc., restricted later to *Hæmulon elegans* Cuvier = *Sparus sciurus* Shaw).

Anarmostus Scudder, in Putnam, Bull. Mus. Comp. Zool., I, 1863, 12; name preoccupied in insects.

2536. *Hæmulon sexfasciatum* Gill. *Mojarra almejero.*

Pacific coast of tropical America, Guaymas to Panama.

Hæmulon sexfasciatum Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 254, Cape San Lucas.

Hæmulon maculosum Peters, Berliner Monatsber., 1869, 705, Mazatlan.

2537. *Hæmulon album* Cuvier and Valenciennes. *Margatefish; Jallao; Margaret grunt.*

West Indies; Florida Keys to Brazil.

Perca marina gibbosa cinerea (margatefish) Catesby, Nat. Hist. Carolina, II, 1743, 2, pl. 2, Bahamas.

Perca gibbosa Walbaum, Artedi Pisc., 1792, 342, not of Linnaeus, after Catesby.

Hæmulon album Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 179 (241), St. Thomas.

Hæmulon microphthalmum Günther, Cat., I, 1859, 306, America.

2538. *Hæmulon mowbrayi* Jordan and Evermann.

Key West, Fla.

Hæmulon chrysopterum Mowbray, N. Y. Zool. Soc. Bull., XVIII, No. 6, 1915, 1298, with fig., Key West; not of Cuvier, which is *Bathystoma rimator* Jordan and Swain.

Hæmulon mowbrayi Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 505.

2539. *Hæmulon macrostomum* Günther. *Gray grunt; Striped grunt.*

West Indies, north to Florida Keys.

Hæmulon macrostoma Günther, Cat., I, 1859, 308, Jamaica.

Hæmulon fremebundum Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 340, Clearwater Harbor, Fla.

2540. *Hæmulon bonariense* Cuvier and Valenciennes. *Black grunt; Ponce prieto.*

West Indies, south to Buenos Aires.

Hæmulon bonariense Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 174 (254), Buenos Aires.

Hæmulon canna Cuvier and Valenciennes, loc. cit., V, 173 (233), Martinique.

Hæmulon notatum Poey, Memorias, II, 1861, 179, Cuba.

Hæmulon retrocurrens Poey, Repertorio, II, 1868, 236, 461, Cuba.

Hæmulon continuum Poey, Enumeratio, 1875, 46, Cuba.

2541. *Hæmulon parra* (Desmarest). *Sailors' choice; Ronco blanco; Ronco prieto; Bastard margaret.*

West Indies; southern Florida to Brazil; very common at Key West and Habana.

Diabasis parra Desmarest, Prem. Décade Ichth., 1823, 30, pl. 2, fig. 2, Habana.

Hæmulon caudimacula Cuvier, Règne Anim., ed. 2, II, 1829, 176, Brazil; Habana.

Hæmulon chromis Broussonet, in Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 180 (242), Jamaica.

Hæmulon acutum Poey, Memorias, II, 1861, 180, Cuba.

Hæmulon serratum Poey, loc. cit., 181, Cuba.

Hæmulon albidum Poey, loc. cit., 181, Cuba.

Hæmulon canna Agassiz in Spix, Pisc. Brasil., 1829, 130, pl. 69, Brazil; not of Cuvier and Valenciennes.

2542. *Hæmulon scudderi* Gill. *Mojarra prieta*.
Pacific coast of tropical America, Guaymas to Panama.
Hæmulon scudderi Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 253,
Cape San Lucas.
Hæmulon brevirostrum Günther, Trans. Zool. Soc. Lond., VI, 1868, 418
(Nov. 27), Panama.
Hæmulon undecimale Steindachner, Ichth. Beitr., III, 1875, 11, Panama.
2543. *Hæmulon carbonarium* Poey. *Ronco carbonero; Cæsar grunt*.
West Indies and Bermudas, south to Brazil; Habana.
Hæmulon carbonarium Poey, Memorias, II, 1861, 176, Cuba.
2544. *Hæmulon steindachneri* (Jordan and Gilbert). *Roncador rañado*.
Both coasts of tropical America; Guaymas to Panama; a similar
species (unnamed) recorded from St. Lucia and Rio Janeiro.
Diabasis steindachneri Jordan and Gilbert, Bull. U. S. Fish Com., I,
1881 (1882), 322, Panama and Mazatlan.
2545. *Hæmulon melanurum* (Linnæus). *Jeniquana; Cæsar grunt*.
West Indies; Habana and southward; Bush Key; Tortugas.
Perca marina cauda nigra (blacktail) Catesby, Hist. Carolina, II, 1743,
7, pl. 7, fig. 2, Bahamas.
Perca melanura Linnæus, Syst. Nat., ed. X, 1758, 292, and ed. XII,
1766, 486, Bahamas; based on Catesby.
Hæmulon schrankii Agassiz in Spix, Pisc. Brasil., 1829, 131, pl. 69a,
Brazil.
Hæmulon dorsale Poey, Memorias, II, 1861, 179, Cuba.
2546. *Hæmulon sciurus* (Shaw). *Yellow grunt; Ronco amarillo; Boar
grunt; Humpback grunt*.
West Indies; Florida Keys to Brazil.
Anthias formosus Bloch, Nat. Ausl. Fische, VI, 1792, 122, Antilles;
not *Perca formosa* of Linnæus as identified.
Sparus sciurus Shaw, General Zoology, IV, 1803, 439, pl. 64, Antilles;
based on the description and figure of Bloch.
? *Diabasis obliquatus* Bennett, Zool. Jour. London, V, 1837, 90, Jamaica.
? *Hæmulon similis* Castelnau, Anim. Nouv. Rares, II, 1855, Bahia.
Hæmulon luteum Poey, Memorias, II, 1861, 174, Cuba.
Hæmulon multilineatum Poey, loc. cit., 178, Cuba.
? *Hæmulon hians* Haly, Ann. Nat. Hist., XV, 1875, 268, Aspinwall.
2547. *Hæmulon plumieri* (Lacépède). *Common grunt; Ronco ronco; Ronco
arará; Boar grunt; Squirrelfish; Ronco grande*.
West Indies; abundant from Cape Hatteras to Rio Janeiro.
Perca marina capite striato Catesby, Nat. Hist. Carolina, II, 1743, 6,
pl. 6, Bahamas.
Labrus plumieri Lacépède, Hist. Nat. Poiss., III, 1802, 480, pl. 2, fig. 2,
Martinique; on a copy of a drawing by Plumier, identified with this
species by Cuvier.
Guabicoara brasiliensibus Marcgrave, Hist. Brasil., 1648, 163, Brazil.
Hæmulon formosum Cuvier, Règne Anim., ed. 2, II, 1829, 175, Mar-
tinique.
Hæmulon arcuatum Cuvier and Valenciennes, Hist. Nat. Poiss., IX,
1833, 356 (481), Charleston, S. C.
Hæmulon arara Poey, Memorias, II, 1861, 177, Cuba.
Hæmulon subarcuatum Poey, loc. cit., 419, Cuba.
2548. *Hæmulon flavolineatum* (Desmarest). *French grunt; Open-mouthed
grunt; Ronco condenado*.
West Indies; Florida Keys and Bermudas to Brazil.
Diabasis flavolineatus Desmarest, Prem. Décade Ichth., 1823, 35, pl. 2,
fig. 1, Cuba.
Hæmulon heterodon Cuvier, Règne Anim., ed. 2, II, 1829, 176, Cuba,
based on Desmarest.
Hæmulon xanthopteron Cuvier and Valenciennes, Hist. Nat. Poiss., V,
1830, 174 (254), Martinique.

Genus 875. BRACHYGENYS Scudder.

Brachygenys Scudder, in Poey, Enumeratio, 1875, 47 (*Hæmulon tænia-
tum* Poey = *Hæmulon chrysargyreum* Günther).

2549. *Brachygenys chrysargyreus* (Günther).

Key West, Habana, and Trinidad.

Hæmulon chrysargyreum Günther, Cat., 1859, 314, Trinidad.*Hæmulon tæniatum* Poey, Memorias, II, 1861, 182, Cuba.**Genus 876. BATHYSTOMA Scudder. *Tomtates*.***Bathystoma* Scudder, in Putnam, Bull. Mus. Comp. Zool., I, 1863, 12; no definition. (*Hæmulon jeniquano* Poey = *Hæmulon aurolineatum* Cuvier and Valenciennes); not *Bathystomus* Förster, 1862.**2550. *Bathystoma rimator* (Jordan and Swain). *Tomtate*; *Redmouth grunt*; *Cæsar*; *Young grunt*.**

West Indies; Cape Hatteras to Trinidad.

Hæmulon rimator Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 308, Charleston; Key West; Pensacola.**2551. *Bathystoma aurolineatum* (Cuvier and Valenciennes). *Jeniquano*; *Tomtate*.**

West Indies; Florida Keys to Brazil.

Hæmulon aurolineatum Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 176 (237), Brazil; San Domingo.*Hæmulon jeniquano* Poey, Memorias, II, 1861, 183, Cuba.**2552. *Bathystoma striatum* (Linnæus). *White grunt*.**

West Indies; Bermudas to Brazil.

Capeuna brasiliensibus Maregrave, Hist. Brasil., 1648, 155, Brazil (nonbinomial).*Perca striata* Linnæus, Syst. Nat., Ed. X, 1758, 293, North America.*Grammistes trivittatus* Bloch and Schneider, Syst. Ichth., 1801, 188, Brazil, after Maregrave.*Serranus capuena* Lichtenstein, Abhandl. Berlin. Akad., 1820, 288, Brazil; after Maregrave.*Hæmulon quadrilineatum* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 177 (238), pl. 120, San Domingo.*Hæmulon quinquelineatum* Poey, Memorias, II, 1861, 419, Cuba.**Genus 877. LYTHRULON Jordan and Swain.***Lythrulon* Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 287 (*Hæmulon flaviguttatus* Gill).**2553. *Lythrulon flaviguttatum* (Gill). *Peixe fonda*.**

Pacific coast of tropical America; Guaymas to Panama.

Hæmulon flaviguttatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 254, Cape San Lucas, Lower California.*Hæmulon margariferum* Günther, Proc. Zool. Soc. Lond., 1864, 147, Panama.**2554. *Lythrulon opalescens* Jordan and Starks.**

Mazatlan, Mexico.

Lythrulon opalescens Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., V, 1895, 459, pl. 40, Mazatlan, Mexico.**Genus 878. ORTHOSTÆCHUS Gill. *Striped grunts*.***Orthostæchus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 255 (*O. maculicauda* Gill).**2555. *Orthostæchus maculicauda* Gill. *Roncador rayado*.**

Pacific coast of tropical America; Guaymas to Panama.

Orthostæchus maculicauda Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 225, Cape San Lucas, Lower California.*Hæmulon mazatlanum* Steindachner, Ichth. Notizen, VIII, 1869, 12, Pl. VI, Mazatlan.**Genus 879. PARAONODON Bleeker.***Paraconodon* Bleeker, Archiv Neerl., XI, 1876, 272 (*Conodon pacifici* Günther).**2556. *Paraconodon pacifici* (Günther).**

Pacific coast of tropical America.

Conodon pacifici Günther, Proc. Zool. Soc. Lond., 1864, 147, Chiapam.**2557. *Paraconodon cæsius* (Jordan and Gilbert).**

Pacific coast of Mexico; Mazatlan and Acapulco; Bay of Panama.

Pomadasys cæsius Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 383, Mazatlan.

2558. *Paraconodon dovii* (Günther).

Pacific coast of tropical America at Mazatlan and Panama.

Pristipoma dovii Günther, Proc. Zool. Soc. Lond., 1864, 23, Panama**Genus 880. ANISOTREMUS Gill.***Anisotremus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 105 (*Sparus virginicus* Linnæus).*Genytrems* Gill, loc. cit., XIV, 1862, 256 (*Pristipoma bilineatum* Cuvier and Valenciennes = *Anisotremus surinamensis* Bloch).**Subgenus GENYTREMUS Gill.****2559. *Anisotremus surinamensis* (Bloch). *Pompon.***

Tropical America, from Louisiana (New Orleans market) to Brazil.

Luljanus surinamensis Bloch, Naturgesch. Ausl. Fische, IV, 1790, 98, Surinam.*Pristipoma bilineatum* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 202 (271), pl. 122, Martinique.*Pristipoma melanopteron* Cuvier and Valenciennes, loc. cit., 203 (273), Brazil.*Hæmulon obtusum* Poey, Memorias, II, 1861, 182, Habana.*Hæmulon labridum* Poey, loc. cit., 1861, 419, Cuba.**2560. *Anisotremus interruptus* (Gill). *Mojarron.***

Pacific coast, Magdalena Bay to Panama and the Galapagos.

Genytrems interruptus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1861, 256, Cape San Lucas, Lower California.*Pristipoma furthii* Steindachner, Ichth. Beitr., V, 1876, 4, Panama.**2561. *Anisotremus bicolor* (Castelnau). *Maria prieta.***

Coast of Brazil; perhaps Cuba.

Pristipoma bicolor Castelnau, Anim. Amér. du Sud, Poiss., 1855, 8, pl. 2, fig. 2, Bahia, Brazil.*Pristipoma trilineatum* Poey, Memorias, II, 1861, 343, Habana, young.*Pristipoma brasiliense* Steindachner, Sitzungsab. k. Akad. Wiss. Wien, 1863, 1013, Bahia.**Subgenus ANISOTREMUS Gill.****2562. *Anisotremus scapularis* (Tschudi).**

Coast of Peru; said to have been once taken at Mazatlan, a doubtful record.

Pristipoma scapulare Tschudi, Fauna Peruana, 12, 1845, Huacho, Peru.*Diagramma melanospilum* Kner, Sitzungsab. k. Akad. Wiss., 1807, 4, west coast of South America.*Pristipoma notatum* Peters, Monatsb. Akad. Wiss. Berlin, 1869, 706, "angeblich aus Mazatlan."**2563. *Anisotremus davidsonii* (Steindachner). *Sargo rañado.***

Coast of southern California.

Pristipoma davidsonii Steindachner, Ichth. Beitr., III, 1875, 6, San Diego.**2564. *Anisotremus spleniatatus* (Poey).**

Habana.

Pristipoma spleniatum Poey, Memorias, II, 1861, 187, Habana.**2565. *Anisotremus tæniatus* Gill. *Catalina; Striped grunt.***

Pacific coast of tropical America; Magdalena Bay to Panama.

Anisotremus tæniatus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 107, Panama.**2566. *Anisotremus virginicus* (Linnæus). *Porkfish; Catalineta.***

West Indies; Florida Keys to Brazil.

Guatucupa juba Maregrave, Hist. Brasil., 1648, 147, Brazil.*Acara pinima* Maregrave, loc. cit., 1648, 152, Brazil.*Sparus virginicus* Linnæus, Syst. Nat., ed. X, 1758, 281, South America.*?Sparus vittatus* Bloch, Naturgesch. Ausl. Fische, V, 1791, 33, fig. 2, Brazil; after *Acara pinima* Maregrave.*Perca juba* Bloch, loc. cit., VI, 1792, 77, Brazil, after Maregrave.*Grammistes mauritii* Bloch and Schneider, Syst. Ichthyol., 1801, 185, after Bloch.

?*Pristipoma catharinæ* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 201, 269, St. Catharine Island, Brazil.

Pristipoma acara-pinima Castelnau, Anim. Nouv. Rares, 1856, 8, Brazil.

Pristipoma rodo Cuvier and Valenciennes, loc. cit., 205 (274), Martinique, Brazil, Porto Rico, and San Domingo.

2567. *Anisotremus serrula* (Cuvier and Valenciennes). *Tête de roche; Petite scie.*

Martinique.

Pristipoma serrula Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 203 (272), Martinique.

Pristipoma auratum Cuvier and Valenciennes, loc. cit., 203 (272), Martinique.

Genus 881. **CONODON** Cuvier and Valenciennes.

Conodon Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 156 (*C. antillanus* Cuvier and Valenciennes = *Perca nobilis* Linnæus).

Cheloniger Plumier, in Lacépède, Hist. Nat. Poiss., V, 1803 (*Perca nobilis* Linnæus); name not accepted by Lacépède.

2568. *Conodon nobilis* (Linnæus).

West Indies; coast of Texas to Brazil.

Perca nobilis Linnæus, Syst. Nat., Ed. X, 1758, 291, North America.

Sciæna plumieri Bloch, Nat. Ausl. Fische, VI, 1792, 66, taf. 306, Martinique.

Sciæna coro Bloch, loc. cit., 1792, 70, pl. 307, fig. 2, Brazil; after *Coro coro* Maregrave.

Conodon antillanus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 116 (156), Jamaica.

2569. *Conodon serrifer* Jordan and Gilbert.

Lower California.

Conodon serrifer Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 351, Boca Soledad, Lower California.

Genus 882. **BRACHYDEUTERUS** Gill. *Burritos.*

Brachydeuterus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 17 (*B. auritus*, an African species).

Hæmulopsis Steindachner, Ichth. Notizen, VIII, 1869, 9, Mazatlan (*Hæmulon corvinæformis* Steindachner).

2570. *Brachydeuterus nitidus* (Steindachner).

Pacific coast of tropical America; Panama, Mazatlan, and the Gulf of California.

Pristipoma (Hæmulopsis) nitidum Steindachner, Ichth. Notizen, VIII, 1869, 5, Mazatlan.

2571. *Brachydeuterus leuciscus* (Günther). *Burrito.*

Pacific coast of tropical America; not rare at Mazatlan and Panama; south to northern Peru.

Pristipoma leuciscus Günther, Proc. Zool. Soc. Lond., 1864, 147, San Jose de Nicaragua; Chiapam.

Pomadasis elongatus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 352, Mazatlan, Mexico.

2572. *Brachydeuterus axillaris* (Steindachner). *Burro blanco.*

Pacific coast of Mexico; Mazatlan and Guaymas.

Pristipoma (Hæmulopsis) axillare Steindachner, Ichth. Notizen, VIII, 1869, 7, Mazatlan.

2573. *Brachydeuterus corvinæformis* (Steindachner).

West Indies to Brazil; Jamaica.

Hæmulon corvinæforme Steindachner, Ichth. Notizen, VII, 1868, 16, Santos, Brazil.

Genus 883. **RHENCUS** Jordan and Evermann.

Rhencus Jordan and Evermann, Check List, 1895, 387 (*Pristipoma panamense* Steindachner).

2574. *Rhencus panamensis* (Steindachner).

Pacific coast of tropical America; Panama and Mazatlan.

Pristipoma panamense Steindachner, Ichth. Beitr., III, 1875, 8, Panama.**Genus 884. POMADASYS Lacépède. Burros.***Pomadasys* Lacépède, Hist. Nat. Poiss., IV, 1803, 516 (*Sciæna argentea* Forskål).*Pristipomus* Oken, Isis, 1817, 279 (*Lutjanus hasta* Bloch; after *les Pristipomes* Cuvier).*Pristipoma* Cuvier and Valenciennes, changed spelling.**Subgenus PRISTOPOMUS Cuvier.****2575. *Pomadasys bayanus* Jordan and Evermann.**

Pacific coast of Panama, in fresh water.

Pristipoma humile Kner and Steindachner, Sitzgber. Akad. Wiss. Münch., 1863, 222, Rio Bayano, near Panama; name preoccupied by *Pristipoma humilis* Bowdich, Fishes of Madeira, 1825, 236.*Pomadasys bayanus* Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1331, Rio Bayano, near Panama.**2576. *Pomadasys productus* (Poey).**

Cuba.

Pristipoma productum Poey, Memorias, II, 1861, 186, Habana.**2577. *Pomadasys macracanthus* (Günther). Burro.**

Pacific coast of tropical America; Panama; Mazatlan; Chiapas, and Punta Arenas.

Pristipoma macracanthum Günther, Proc. Zool. Soc. Lond., 1864, 146, Chiapam.**2578. *Pomadasys grandis* Meek.**

Lake Nicaragua.

Pomadasys grandis Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 116, Lake Nicaragua.**2579. *Pomadasys templei* Meek.**

Valles, San Luis Potosí, Mexico.

Pomadasys templei Meek, Field Col. Mus., Zool., V, 1904, 201, Valles, San Luis Potosí, Mexico.**2580. *Pomadasys boschnæ* (Metzelaar).**

West Indies.

Pristipoma boschnæ Metzelaar, Tropisch Atl. Vissch., 1919, 83, fig. 27; probably from Curaçao.**2581. *Pomadasys starri* Meek. Burro.**

Perez, Vera Cruz, Mexico.

Pomadasys starri Meek, Field Col. Mus., Zool., V, 1904, 200, Perez, Vera Cruz, Mexico.**Genus 885. RHONCISCUS Jordan and Evermann.***Rhonciscus* Jordan and Evermann, Check List, 1895, 387 (*Pristipoma crocro* Cuvier and Valenciennes).**2582. *Rhonciscus crocro* (Cuvier and Valenciennes).**

West Indies; Cuba to Brazil.

Pristipoma crocro Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 197 (264), Martinique.*Pristipoma cultiferum* Poey, Memorias, II, 1861, 185, Habana.*Pomadasys approximans* Bean and Dresel, Proc. U. S. Nat. Mus., VII, 1884, 160, Jamaica.**2583. *Rhonciscus branicki* (Steindachner). Burrito.**

Pacific coast of tropical America; Mazatlan to Peru.

Pristipoma branicki Steindachner, Denkschr. K. Akad. Wiss. Wien, XLI, 1879, 28, Tumbes, Peru.**2584. *Rhonciscus ramosus* (Poey).**

West Indies; south to Brazil.

Pristipoma ramosum Poey, Memorias, II, 1861, 186, Habana.*Pristipoma bquardi* Steindachner, Ichth. Notizen, VIII, 1869, 1, Cojimar River near Habana.

- 2585. *Rhonciscus sinuosus*** (Eigenmann).
North coast of Colombia.
Pomadasys sinuosus Eigenmann, Proc. Amer. Phil. Soc., LVI, 1917, 683,
Patia, between Magna and Telembi.
- Genus 886. *ORTHOPRISTIS*** Girard. *Pigfishes*.
Orthopristis Girard, U. S. Mex. Bound. Surv., Zool., 1859, 15 (*O. duplex*
Girard = *Perca chrysopterus* Linnaeus).
Pristocantharus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 256
(*Pristipoma cantharinum* Jenyns).
- 2586. *Orthopristis chaldeus*** (Günther).
Pacific coast of tropical America, from Cape San Lucas to the Gala-
pagos.
Pristipoma chaldeum Günther, Proc. Zool. Soc. Lond., 1864, 146,
Panama.
Pristipoma kneri Steindachner, Ichth. Notizen, VIII, 1869, 3, Mazatlan,
Mexico.
- 2587. *Orthopristis reddingi*** Jordan and Richardson.
La Paz, Lower California.
Orthopristis reddingi Jordan and Richardson, in Jordan, Proc. Calif.
Acad. Sci., V, 1895, 509, pl. 41, La Paz, Lower California.
- 2588. *Orthopristis chrysopterus*** (Linnaeus). *Pigfish; Sailors' choice; Hogfish;*
Red-mouthed grunt.
South Atlantic and Gulf coasts of the United States; young common
as far north as New York.
Perca chrysoptera Linnaeus, Syst. Nat., Ed. XII, 1766, 485, Charleston,
S. C.
Labrus fulvo-maculatus Mitchill, Trans. Lit. and Phil. Soc. N. Y.,
1814, 406, New York.
Pristipoma fasciatum Cuvier and Valenciennes, Hist. Nat. Poiss., V,
1830, 213 (285), New York.
Orthopristis duplex Girard, U. S. Mex. Bound. Surv., Zool., Fishes, 1859,
15, pl. 9, figs. 1 to 4, Indianola and Brazos Santiago, Tex.
- 2589. *Orthopristis poeyi*** Seudder.
West Indies; Habana.
Orthopristis poeyi Seudder, in Poey, Synopsis, 1868, 312, Habana.
- Genus 887. *MICROLEPIDOTUS*** Gill.
Microlepidotus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 255 (*M.*
inornatus Gill).
Isaciella Jordan and Fesler, Rept. U. S. Fish Com., XVII, 1889-1891
(1893), 497 (*Pristipoma brevipinne* Steindachner).
- 2590. *Microlepidotus brevipinnis*** (Steindachner).
Pacific coast of Mexico.
Pristipoma (Hæmulopsis) brevipinne Steindachner, Ichth. Notizen, VIII,
1869, 10, Mazatlan.
- 2591. *Microlepidotus inornatus*** Gill. *Jopaton*.
Gulf of California; La Paz and Mazatlan.
Microlepidotus inornatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
256, Cape San Lucas, Lower California.
- Genus 888. *GENYATREMUS*** Gill.
Genyatremus Gill, Proc., Acad. Nat. Sci. Phila., XIV, 1862, 256 (*Dia-*
gramma cavifrons Cuvier and Valenciennes = *Lutianus luteus* Bloch).
- 2592. *Genyatremus luteus*** (Bloch).
Lesser Antilles to Brazil.
Lutianus luteus Bloch, Nat. Ausl. Fische, IV, 1795, 111, Martinique;
on a drawing by Plumier.
Grammistes hepatus Bloch and Schneider, Syst. Ichth., 1801, 187,
after Bloch.
Diagramma cavifrons Cuvier and Valenciennes, Hist. Nat. Poiss., V,
1830, 217 (290), pl. 123, Rio Janeiro.

Family 206. SPARIDÆ. Porgies; Pargos

Genus 889. OTRYNTER Jordan and Evermann.

Otrynter Jordan and Evermann, Check List, 1895, 388 (*Stenotomus caprinus* Bean).

2593. *Otrynter caprinus* (Bean).

Banks off the west coast of Florida.

Stenotomus caprinus Bean, Proc. U. S. Nat. Mus., V, 1882, 426, Snapper Banks off Pensacola, Fla.

Genus 890. STENOTOMUS Gill.

Stenotomus Gill, Canadian Nat., 1865, 266 (*Sparus argyrops* Linnæus = *Sparus chrysops* Linnæus).

Stenesthes Jordan, Copeia, Oct. 4, 1917 (same type); substitute name, there being an earlier genus *Stenotoma*).

2594. *Stenotomus versicolor* (Mitchill). Common scup; Porgy; Scuppaug; Mishecuppauog; Bream; Fair maid.

Atlantic coast of United States, from Cape Cod to North Carolina; common northward.

Labrus versicolor Mitchill, Trans. Lit. and Phil. Soc., I, 1815, 404, New York.

Sargus ambassis Günther, Cat., I, 1859, 449, New York.

2595. *Stenotomus chrysops* (Linnæus). Southern porgy.

Southern Atlantic and Gulf coast of United States, Cape Hatteras to Texas.

Sparus argyrops Linnæus, Syst. Nat., Ed. XII, 1766, 471, Charleston; young.

Sparus chrysops Linnæus, loc. cit., 1766, 471, Charleston, S. C.

Sparus xanthurus Lacépède, Hist. Nat. Poiss., IV, 1803, 120, Charleston; after *argyrops* L.

Chrysophrys aculeata Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1830, 137, Charleston, S. C.

Genus 891. CALAMUS Swainson.

Calamus Swainson, Nat. Hist. Fishes, etc., II, 1839, 171 and 221 (*Pagellus calamus* Cuvier and Valenciennes).

Grammateus Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1874 (*Pagellus microps* Guichenot = *Pagellus penna* Cuvier and Valenciennes).

2596. *Calamus calamus* (Cuvier and Valenciennes). Saucereye porgy; *Pez de pluma*.

West Indies, north to Florida Keys.

Pagellus calamus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 152 (206), pl. 152, Martinique; San Domingo.

Calamus megacephalus Swainson, Nat. Hist. Fishes, II, 1839, 222, after Cuvier and Valenciennes.

Pagellus orbitarius Poey, Memorias, II, 1861, 201, Cuba.

2597. *Calamus bajonado* (Bloch and Schneider). Jolt-head porgy; *Bajonado*. West Indies, north to Florida Keys.

Sparus bajonado Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 284, West Indies; after Parra.

Bajonado Parra, Dif. Piezas Hist. Nat. Cuba, 1787, 13, lam. 8, Habana.

Pagellus caninus Poey, Memorias, II, 1861, 199, Habana.

Calamus plumatula Guichenot, Rev. Pagels in Mém. Soc. Sci. Nat. Cherbourg, XIV, 1868, 119, Martinique.

2598. *Calamus proridens* Jordan and Gilbert. Littlehead porgy; *Pez de pluma*. West Indies, north to the Florida Keys.

Calamus proridens Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 150, Key West, Fla.

2599. *Calamus pennatula* Guichenot. Littlehead porgy.

West Indies.

Calamus pennatula Guichenot, Révision des Pagels in Mém. Soc. Sci. Nat. Cherbourg, XIV, 1868, 116, Martinique.

2600. *Calamus brachysomus* (Lockington). *Mojarra garabata*.
Gulf of California and neighboring waters, locally abundant from
Magdalena Bay to Panama.
Sparus brachysomus Lockington, Proc. U. S. Nat. Mus., III, 1880, 284,
Magdalena Bay, Lower California.
2601. *Calamus leucosteus* Jordan and Gilbert. *Whitebone porgy*.
South Atlantic coast of United States; known only from the markets
of Charleston, S. C.
Calamus leucosteus Jordan and Gilbert, in Jordan, Cat. Fish. N. Amer.,
in Rept. U. S. Fish Com., XIII, 1885, 879, Charleston, S. C.
2602. *Calamus macrops* Poey.
Cuba.
Calamus macrops Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1872, 181,
Pl. VII, fig. 3, Habana.
2603. *Calamus penna* (Cuvier and Valenciennes). *Littlemouth porgy*; *Sheeps-
head porgy*; *Speckled porgy*.
Southern Florida to Brazil; known from southern Florida, Key West,
Rio Janeiro, St. Thomas, Habana, Camaru, and Rio Grande do Sul.
Pagellus penna Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
154 (209), Brazil.
Pagellus microps Guichenot, in Ramon de la Sagra, Hist. Ile Cuba,
1853, 83, pl. 3, fig. 1, Habana.
Pagellus humilis Poey, Synopsis, 1868, 308, Habana.
Pagellus milneri Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 134,
Charlotte Harbor, Fla.
2604. *Calamus arctifrons* Goode and Bean. *Grass porgy*; *Shad porgy*.
Gulf of Mexico, from Pensacola to Key West; West Indies; Porto Rico.
Calamus arctifrons Goode and Bean, Proc. U. S. Nat. Mus., V, 1882,
425, Pensacola, Fla.
2605. *Calamus medius* (Poey).
West Indies; Habana.
Grammateus medius Poey, Ann. Lyc. Nat. Hist. N. Y., X, 1872, 183,
pl. 7, fig. 4, Habana.
2606. *Calamus kendalli* Evermann and Marsh. *Pluma*.
Porto Rico.
Calamus kendalli Evermann and Marsh, Rept. U. S. Fish Com., XXV,
1899, 354, Mayaguez, Porto Rico.
- Genus 892. *PAGRUS* Cuvier.
Pagrus Cuvier, Règne Animal, ed. 1, 1817, 272 (*Sparus argenteus* Bloch
and Schneider = *Sparus pagrus* Linnæus).
2607. *Pagrus pagrus* (Linnæus). *Red porgy*; *Besugo*; *Pargo colorado*.
Southern Europe and south Atlantic and Gulf coasts of the United
States; south to Uruguay; less common in America.
Sparus pagrus Linnæus, Syst. Nat., Ed. X, 1758, 279, southern Europe.
Sparus argenteus Bloch and Schneider, Syst. Ichth., 1801, 271, Europe.
Pagrus vulgaris Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
104 (142), pl. 148, southern Europe.
- Genus 893. *LAGODON* Holbrook. *Chopa spina*; *Sailors' choice*.
Lagodon Holbrook, Ichth. South Carolina, 1855, 56 (*Sparus rhomboides*
Linnæus).
2608. *Lagodon rhomboides* (Linnæus). *Pinfish*; *Bream*; *Sailors' choice*;
Chopa spina; *Sargo*.
Atlantic and Gulf coasts of United States; Cape Cod to Cuba.
Sparus rhomboides Linnæus, Syst. Nat., Ed. XII, 1766, 470, Charleston,
S. C.
- Genus 894. *SALEMA* Jordan and Evermann.
*Salema*⁶¹ Jordan and Evermann, Check List, 1895, 390 (*Perca uni-
maculata* Bloch).

⁶¹ Not *Seleima* Bowdich 1825 = *Kyphosus*.

2609. *Salema rhomboidalis* (Linnaeus). *Salema*.
West Indies, north to Key West, south to Rio Janeiro.
Perca rhomboidalis Linnaeus, Syst. Nat., Ed. X, 1758, Jamaica; after
Bream, Browne, Jamaica, 1756, 446.
Perca unimaculata Bloch, Nat. Ausl. Fische, VI, 1792, 75, Brazil.
Sparus salin Lacépède, Hist. Nat. Poiss., IV, 1802, 136; based on
Bloch.
Sargus humerimaculatus Quoy and Gaimard, Voy. Freycinet, Zool.,
1824, 297, Rio Janeiro.
Sargus flavolineatus Cuvier and Valenciennes, Hist. Nat. Poiss., VI,
1830, 44 (60), Cuba.
Cynædus brama Gronow, Cat. Fishes, ed. Gray, 1854, 56, South Carolina.
Sargus caribæus Poey, Memorias, II, 1861, 197, Cuba.
2610. *Salema tridens* (Poey).
Cuba.
Sargus tridens Poey, Enumeratio, 1875, 57, Cuba.
- Genus 895. **ARCHOSARGUS** Gill. *Sheepsheads*.
Archosargus Gill, Canadian Nat., 1865, 266 (*Sparus probatocephalus*
Walbaum).
2611. *Archosargus probatocephalus* (Walbaum). *Sheepshead*; *Sargo raiado*.
Atlantic and Gulf coasts of the United States; Cape Cod to Florida
Keys and Texas.
Sparus probatocephalus Walbaum, Artedi Pisc., 1792, 295, New York;
based on *Sparus* of Schöpfung.
Sparus ovicephalus Bloch and Schneider, Syst. Ichth., 1801, 280, New
York.
Sargus ovis Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1814, 392,
pl. 2, fig. 5, New York.
2612. *Archosargus aries* (Cuvier and Valenciennes).
Honduras to Brazil; Rio Janeiro; Maracaibo; Belize.
Sargus aries Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 42
(58), Rio Janeiro; Maracaibo.
- Genus 896. **DIPLodus** Rafinesque.
Diplodus Rafinesque, Indice, 1810, 54 (*Sparus annularis* L.).
Sargus Cuvier, Règne Anim., I, 1817, 272 (*Sparus sargus* Linnaeus);
preoccupied in insects.
2613. *Diplodus holbrookii* (Bean).
South Atlantic and Gulf coasts of the United States; Cape Hatteras to
Cedar Keys.
Sargus holbrookii Bean, Forest and Stream, June 13, 1878, 359, Charles-
ton, S. C.
2614. *Diplodus argenteus* (Cuvier and Valenciennes). *Sargo*.
West Indies; Florida and Bermudas, south to Argentina.
Sargus argenteus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
44 (60), Brazil.
Sargus caudimacula Poey, Memorias, II, 1861, 198, Cuba.
2615. *Diplodus sargus* (Linnaeus). *Sargo*.
Coasts of southern Europe; Bermudas.
Sargus sargus Linnaeus, Syst. Nat., Ed. X, 1758, 278, Mediterranean.
Sargus variegatus Lacépède, Hist. Nat. Poiss., IV, 1803, 207, Medi-
terranean.
Sargus raucus Geoffroy St. Hilaire, Deser. de l'Égypte, Poiss., 1813,
Pl. XVIII, fig. 1, coast of Egypt.
Sargus rondeletii Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830,
10 (14), pl. 141, Mediterranean.
Sargus vitula Cuvier and Valenciennes, loc. cit., 35 (48), Naples.

Family 207. GIRELLIDÆ

Genus 897. **GIRELLA** ⁶² Gray.

- Girella* Gray, Illus. Indian Zool., II, 1833, 98 (*G. punctata* Gray).
Camarina Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860 (1863), 81 (*C.*
nigricans Ayres).

⁶² *Melanichthys* Schlegel, 1844=*Incisidens* Gill, 1862; differs from *Girella* in having two to four rows of incisors and is probably a valid genus.

2616. *Girella nigricans* (Ayres). *Greenfish; California bluefish; White spot*.
Coast of southern California from Monterey to Cape San Lucas.
Camarina nigricans Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 81, fig. 22, California.
Girella dorsomacula Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 244, Cape San Lucas.
- Genus 898. *INCISIDENS* Gill.
Incisidens Gill, Proc. Acad. Sci. Phila., XIV, 1862, 244 (*Crenidens simplex*⁶³ Richardson).
Aplodon Duméril, in Thominot, Bull. Soc. Philom. Paris, 1883, 141 (*Aplodon margaritifera* Duméril); name preoccupied.
2617. *Incisidens simplicidens* (Osburn and Nichols).
Gulf of California.
Girella simplicidens Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 165, fig. 10, San Francisco.

Family 208. *KYPHOSIDÆ*. PilotfishesGenus 899. *KYPHOSUS* Lacépède.

- Kyphosus* Lacépède, Hist. Nat. Poiss., III, 1802, 114 (*K. bigibbus* Lacépède=*fuscus* Lacépède).
Pimlepterus Lacépède, Hist. Nat. Poiss., IV, 1803, 429 (*P. bosci* Lacépède).
Dorsuarius Lacépède, loc. cit., V, 1803, 482 (*D. nigrescens* Lacépède).
Xyster Lacépède, loc. cit., X, 484 (*X. fuscus* Lacépède).
Xysterus Rafinesque, Anal. Nature, 1815, 95; substitute for *Xyster*.
Selema Bowdich, Fishes Madeira, 1825, 238 (*S. aurata* Bowdich).
Opisthistius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 245 (*Sciæna tahmel* Forskål).
Cyphosus of authors, corrected spelling.
2618. *Kyphosus analogus* (Gill). *Salema*.
Pacific coast of tropical America, Gulf of California to Panama.
Pimlepterus analogus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 245, Cape San Lucas.
2619. *Kyphosus incisor* (Cuvier and Valenciennes). *Chopa amarilla*.
West Indies to Brazil and the Canaries; Tortugas.
Pimlepterus incisor Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 198 (266), Brazil.
?Salema aurata Bowdich, Excursion Madeira, 1825, 238, Bona Vista Island.
Pimlepterus flavo-lineatus Poey, Repertorio, I, 1866, 319, Habana.
2620. *Kyphosus elegans* (Peters). *Chopa*.
Pacific coast of tropical America, from Guaymas to Mazatlan; a species apparently the same in Hawaii.
Pimlepterus elegans Peters, Berlin. Monatsb., 1869, 707, Mazatlan, Mexico.
Pimlepterus sandvicensis Sauvage, Bull. Soc. Philom., July, 1880 (7), IV, 221, Sandwich Islands.
2621. *Kyphosus metzelaari* Jordan and Evermann.
Caribbean Sea.
Cyphosus elegans Metzelaar, Trop. Atl. Vissch., 1919, 44, Curaçao; Venezuela; not *Pimlepterus elegans* Peters.
This species, according to Metzelaar's account, is extremely close to *Kyphosus elegans* of the Pacific, but the scales are larger; 52 in the lateral line (67 in *elegans*), the teeth are also fewer, "15 in upper jaw"; in *elegans* they are "86 in each jaw."
Kyphosus metzelaari Jordan and Evermann, Proc., Calif. Acad. Sci., 4th Ser., XVI, Apr. 27, 1927, 506, Curaçao, Venezuela.

⁶³This species with entire teeth is said to be the female of *Girella tricuspidata*. If this is true the genus *Incisidens* may not be tenable.

2622. *Kyphosus sectatrix* (Linnæus). *Rudderfish*; *Bermuda chub*; *Chub*; *Chopa blanca*.
West Indies, ranging from Cape Cod to Brazil, crossing the ocean to the Canary Islands; accidental in the Mediterranean; one taken at Palermo.
Perca marina sectatrix Catesby, Nat. Hist. Carolina, II, 1743, 8, Carolinas.
Perca sectatrix Linnæus, Syst. Nat., Ed. XII, 1766, 486 (correction), misprinted for *saltatrix*, after Catesby.
Chætodon cyprinaceus Gmelin, Syst. Nat., I, 1789, 1269, tropical America.
Pimelepterus bosquii Lacépède, Hist. Nat. Poiss., IV, 1803, 429, South Carolina.
Pimelepterus oblongior Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 197 (264), locality unknown.
Pimelepterus bosci sicula Doderlein, Nat. Siciliano, Giornale Scienze Nat., III, 1883, 83, Gulf of Palermo.
2623. *Kyphosus lutescens* (Jordan and Gilbert).
Revillagigedo Archipelago.
Pimelepterus lutescens Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 229, Braithwaite Bay, Socorro Island.
- Genus 900. SECTATOR Jordan and Fesler.
Sector Jordan and Fesler, Rept. U. S. Fish Com., XVII, 1889-91, 534 (*Pimelepterus ocyurus* Jordan and Gilbert).
2624. *Sector ocyurus* (Jordan and Gilbert).
Panama.
Pimelepterus ocyurus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 327, 328, Bay of Panama.
- Genus 901. HERMOSILLA Jenkins and Evermann.
Hermosilla Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 144 (*H. azurea* Jenkins and Evermann).
2625. *Hermosilla azurea* Jenkins and Evermann.
Gulf of California.
Hermosilla azurea Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 144, Guaymas, Mexico.
2626. *Hermosilla robusta* Osburn and Nichols.
Gulf of California.
Hermosilla robusta Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 166, fig. 11, Tiburon Island.

Family 209. INERMIIDÆ

- Genus 902. INERMIA Poey.
Inermia Poey, Memorias, II, 1861, 193 (*I. vittata* Poey).

2627. *Inermia vittata* (Poey). *Boga*.
Caribbean Sea, north to Cuba; often in large schools, off Venezuela.
Inermia vittata Poey, Memorias, II, 1861, 193, Habana.

Family 210. MÆNIDÆ

- Genus 903. SPICARA Rafinesque.
Spicara Rafinesque, Caratteri, 1810, 51 (*S. flexuosa* Rafinesque = *Sparus smar* Linnæus).
Smaris Cuvier, Règne Animal, ed. 1, 1817, 269 (*Sparus smar* Linnæus).

2628. *Spicara martinica* (Cuvier and Valenciennes).
West Indies; probably an error.
Smaris martinicus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 319 (424), Martinique; most likely an error, type probably from the Mediterranean.

Family 211. GERRIDÆ. Mojarras; Silver perch

- Genus 904. EUCINOSTOMUS Baird and Girard. *Mojarritas*.
Eucinostomus Baird and Girard, Ninth Smithsonian Rept., 1854, 344 (*E. argenteus* Baird and Girard = *Gerres gula* Cuvier and Valenciennes).

2629. *Eucinostomus gula* (Cuvier and Valenciennes). *Silver jenny*; *Mojarra de ley*; *Petite gueule*; *Shad*.
Gerres gula Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 349 (464), Martinique.
Eucinostomus argenteus Baird and Girard, Ninth Smith. Rept., 1854, 335, Bessley Point, N. J.
Eucinostomus gulula Poey, Enumeratio, 1875, 54, pl. 2, Habana.
Diapterus homonymus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 340, Clearwater Harbor, Fla.
2630. *Eucinostomus pseudogula* Poey.
Tortugas; West Indies to Brazil; Bermudas; St. Lucia; Bahia.
Eucinostomus pseudo-gula Poey, Enumeratio, 1875, 53, pl. 1, Cuba.
Gerres jonesii Günther, Ann. Mag. Nat. Hist., 1879, 150, Bermudas.
Eucinostomus harengulus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 132, west Florida.
2631. *Eucinostomus californiensis* (Gill). *Mojarra cantilena*.
Pacific coast of Mexico; Guaymas and Cape San Lucas to Panama.
Diapterus californiensis Gill, Proc. Acad. Nat. Sci., Phila., XIV, 1862, 245, Cape San Lucas, Lower California.
Diapterus gracilis Gill, loc. cit., 245, Cape San Lucas.
Diapterus dowii Gill, loc. cit., XV, 1863, 162, Panama.
2632. *Eucinostomus elongatus* Meek and Hildebrand.
Panama.
Eucinostomus californiensis elongatus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 586, Sobago Island, Panama.
- Genus 905. *ULÆMA* Jordan and Evermann.
Ulæma Jordan and Evermann, Proc. Calif. Acad. Sci., V, 1895, 471 (*Diapterus lefroyi* Goode).
2633. *Ulæma lefroyi* (Goode).
West Indies, on sandy shores north to Cedar Keys; Bermudas; Cuba; Key West; recorded north at Beaufort, N. C.
Diapterus lefroyi Goode, Amer. Jour. Sci. Arts, 3d ser., VIII, 1874, 123, Bermudas.
2634. *Ulæma producta* (Poey).
Cuba.
Eucinostomus productus Poey, Enumeratio, 1875, 55, Habana.
2635. *Ulæma meeki* (Eigenmann).
Rio San Juan, in western Cuba.
Eucinostomus meeki Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 229, fig. 10, San Juan River, just below its first ford, west Cuba; apparently a *Ulæma* having but two anal spines, the second hæmal spine not described.
- Genus 906. *GERRES* (Cuvier) Quoy and Gaimard. *Mojarras blancas*.
Gerres Cuvier in Quoy and Gaimard, Voyage *Uranie*, 1824, 293, restricted by Jordan 1919 to *Gerres vaigiensis* Quoy and Gaimard = *Sciæna argyrea* Forskål, an ally of *Mugil cinereus* Walbaum. The only other species named in this earlier paper is *Gerres gula*, belonging to *Eucinostomus*. This use of the name *Gerres* from Cuvier's MS. antedates that in the Règne Animal, 1829, and unfortunately must stand.
Podager Gistel, Thierreich, IX, 1848, a substitute for *Gerres* regarded as preoccupied by *Gerris*; *Podager* is actually so, however.
Catolænum Cantor, Malayan Fishes, 1849, 55, same type, being a substitute for *Gerres*, deemed preoccupied by *Gerris*, a genus of insects.
Xystæma Jordan and Evermann, Proc. Calif. Acad. Sci., V, 1895, 471 (*Mugil cinereus* Walbaum).
2636. *Gerres cinereus* (Walbaum). *Mojarra de Casta*; *Mojarra blanca*; *Broad shad*.
Coasts of tropical America; West Indies, north to Florida; Habana; Jamaica; Martinique; Bahamas; Barbados; Florida Keys.
Turdus cinereus peltatus Catesby, Nat. Hist. Carolinas, II, 1743, 11, Bahamas.
Mugil cinereus Walbaum, Artedi Pisc., 1792, 228, Bahamas; after Catesby.

- Gerres aprion* Cuvier, Règne Animal, ed. 2, II, 1829, 188; based on Catesby.
- Gerres zebra* Müller and Troschel, in Schomburgk's Hist. Barbados, 1848, 668, Barbados.
- Gerres squamipinnis* Günther, Cat., I, 1859, 349, Jamaica; Guatemala.
2637. *Gerres simillimus* Regan.
Pacific coast of tropical America, Mazatlan to Panama.
Gerres simillimus Regan, Biol. Centrali-Amer., Pisces, 1906, 38, Panama.
2638. *Gerres havana* (Nichols).
Miami, Florida; Cuba.
Xystæma havana Nichols, Bull. Amer. Mus. Nat. Hist., XXXI, 1912, 189, fig. 2, Marianas Beach, Habana.
- Genus 907. **MOHARRA** Poey.
Moharra Poey, Enumeratio, 1875, 50 (*Gerres rhombeus* Cuvier and Valenciennes).
2639. *Moharra rhombea* (Cuvier and Valenciennes).
West Indies and Atlantic coast of tropical America; Jamaica; San Domingo; Martinique; Puerto Cabello; Habana; Aspinwall; Rio Magdalena; Santa Lucia; Bahia.
Gerres rhombeus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 345 (459), Martinique; San Domingo.
2640. *Moharra evermanni* (Meek and Hildebrand).
Atlantic waters of Panama.
Diapterus evermanni Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 594, Pl. LXII, Mindi River near Mindi, Panama Canal Zone.
- Genus 908. **DIAPTERUS** Ranzani.
Diapterus Ranzani, Nov. Comment. Bonon., V, 1842, 340 (*Diapterus auratus* Ranzani, a species near *D. alithostomus*).
2641. *Diapterus aureolus* (Jordan and Gilbert).
Panama; only the type known.
Gerres aureolus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 328, Panama.
2642. *Diapterus axillaris* (Günther).
Pacific coast of Mexico.
Gerres axillaris Günther, Proc. Zool. Soc. Lond., 1864, 152, Chiapas.
2643. *Diapterus peruvianus* (Cuvier and Valenciennes). *Mojarra de las aletas amarillas*.
West coast of tropical America; Mazatlan; Salina Cruz; Chiapas; Panama; Peru.
Gerres peruvianus Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 351 (467), Payta, northern Peru.
Gerres brevirostris Sauvage, Bull. Soc. Philom. Paris, III, 1879, 208, Rio Guayas, Ecuador.
2644. *Diapterus olisthostomus* (Goode and Bean). *Irish pompano*; *Muttonfish*.
West Indies, north to southern Florida.
Gerres olisthostoma Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 423, Indian River, Fla.
- Genus 909. **EUGERRES** Jordan and Evermann.
Eugerres Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Gerres plumieri* Cuvier and Valenciennes).
2645. *Eugerres lineatus* (Humboldt). *Mojarra china*.
Pacific coast of Mexico; Acapulco; Mazatlan; San Blas; Chiapas.
Smaris lineatus Humboldt, Observ. Zool., II, 1811, 185, pl. 46, Acapulco.
2646. *Eugerres brasiliensis* (Cuvier and Valenciennes). *Pataó*.
West Indies to Brazil.
Gerres brasiliensis Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 344, 458, Brazil.
Gerres patao Poey, Synopsis, VI, 1868, 320, Habana; scarcely distinguishable from *G. lineatus* of the Pacific coast.
Gerres embryo Jordan and Starks, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1379, Charleston, S. C.; large example.

2647. **Eugerres brevimanus** (Günther).
Pacific coast of tropical America and Panama Bay.
Gerres brevimanus Günther, Proc. Zool. Soc. Lond., 1864, 152, Chiapam.
2648. **Eugerres plumieri** (Cuvier and Valenciennes). *Mojarra*.
Atlantic coast of tropical America and West Indies; Habana; Porto Rico; San Domingo; Jamaica; Pernambuco; Bahia; Aspinwall; Guatemala.
Gerres plumieri Cuvier and Valenciennes, Hist. Nat. Poiss., VI, 1830, 340 (452), pl. 467, Antilles; Porto Rico.
2649. **Eugerres mexicanus** (Steindachner). *Mexican mojarra*.
Rio Teapa, Mexico.
Gerres mexicanus Steindachner, Ueber eine Neue Gerres-Art aus Mexico, Verh. K. K. Ges. Wien, XIII, 1863, 383, Rio Teapa, Mexico.

Family 212. MULLIDÆ. Surmulletts

- Genus 910. **MULLUS** Linnæus. *Surmulletts*.
Mullus Linnæus, Syst. Nat., Ed. X, 1758, 299 (*M. barbatus* Linnæus).
2650. **Mullus auratus** Jordan and Gilbert. *Goatfish; Red mullet*.
Eastern coast of North America, Cape Cod to Pensacola; rare.
Mullus barbatus auratus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 280, Pensacola, Fla.
- Genus 911. **UPENEUS** Cuvier. *Goatfishes*.
Upeneus Cuvier, Règne Animal, Ed. II, 1829, 157 (*vittatus; russelii; bifasciatus; trifasciatus*; first restricted by Bleeker to *bifasciatus*, an ally to *U. maculatus*).
Pseudupeneus Bleeker, Versl. Akad. Amsterdam, XIV, 1862, 134 (*P. prayensis* Bleeker).
Parupeneus Bleeker, Neder. Tijdschr. Dierk., I, 1863, 342 (*Mullus bifasciatus* Lacépède).
Multhypeneus Poey, Repertorio, II, 1867, 160 (*Upeneus flavovittatus* Poey).
Brachymullus Bleeker, Arch. Neerl. Sci. Nat., XI, 1876, 333 (*Upeneus tetraspilus* Günther).
Hypeneus Agassiz, corrected spelling.
2651. **Upeneus maculatus** (Bloch). *Red goatfish; Salmonete*.
West Indies and Brazil, Key West to Rio Janeiro; generally common.
Mullus maculatus Bloch, Naturgesch. Ausl. Fische, VII, 1893, 95, Brazil.
Upeneus punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 355, 482, Martinique.
2652. **Upeneus dentatus** Gill.
Pacific coast of Mexico, Cape San Lucas, La Paz, and the Tres Marias Islands.
Upeneus dentatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 256, Cape San Lucas.
2653. **Upeneus parvus** Poey.
Cuba.
Upeneus parvus Poey, Memorias, I, 1853, 226, Cuba.
2654. **Upeneus martinicus** Cuvier and Valenciennes. *Yellow goatfish; Salmonete amarilla; King mullet*.
West Indies, north to Key West.
Upeneus martinicus Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 356 (483), Martinique.
Upeneus balteatus Cuvier and Valenciennes, loc. cit., 356 (483), Cuba.
Upeneus flavovittatus Poey, Memorias, I, 1853, 224, Cuba.
2655. **Upeneus xanthogrammus** Gilbert.
Coast of Lower California.
Upeneus xanthogrammus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 553, La Paz, Lower California.

2656. *Upeneus grandisquamis* Gill. *Chivo*.

Pacific coast of Mexico and Central America, Guaymas to Panama.

Upeneus grandisquamis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 163, western coast of Central America.*Upeneus tetraspilus* Günther, Proc. Zool. Soc. Lond., 1864, 148, Panama.Genus 912. **MULLOIDES** Bleeker.*Mulloidess* Bleeker, Verh. Bat. Gen., XXII, 1849, 12 (*Mullus flavolineatus* Lacépède).2657. *Mulloidess rathbuni* (Evermann and Jenkins).

Gulf of California.

Upeneus rathbuni Evermann and Jenkins, Proc. U. S. Nat. Mus., XIV, 1891, 158, pl. 2, fig. 4, Bay of Guaymas, Sonora.Family 213. **SCIÆNIDÆ**. Croakers; RoncadoresGenus 913. **LARIMUS** Cuvier and Valenciennes.*Larimus* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 108 (145), (*L. breviceps* Cuvier and Valenciennes).*Amblyscion* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 165 (*A. argenteus* Gill).*Monosira* Poey, Anales de l'Hist. Nat. Esp., 1881, 326 (*M. stahli* Poey).Subgenus **LARIMUS**.2658. *Larimus effulgens* Gilbert.

Pacific coast of Mexico, Sonora to Panama.

Larimus effulgens Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1421, San Juan Lagoon, Sonora.Subgenus **AMBLYSCION** Gill.2659. *Larimus argenteus* (Gill).

Panama.

Amblyscion argenteus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 165, western coast of Central America, the extreme form of the series.2660. *Larimus acclivis* Jordan and Bristol.

Pacific coast of Mexico and Central America, from Sonora to Panama.

Larimus acclivis Jordan and Bristol (S. B.), in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1422, San Juan Lagoon, Sonora.2661. *Larimus breviceps* Cuvier and Valenciennes. *Cabezon*.

West Indies, south to Brazil.

Larimus breviceps Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 108 (145), pl. 140, Brazil; San Domingo.*Monosira stahli* Poey, Anal. Soc. Española Hist. Nat., X, 1881, 326, Pl. VI, Porto Rico.2662. *Larimus pacificus* Jordan and Bollman.

Pacific Ocean, off coast of Colombia.

Larimus pacificus Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 161, Albatross station 2802, 8° 38' N., 79° 31' 30" W., between Galapagos Islands and Panama.2663. *Larimus fasciatus* Holbrook. *Banded larimus*.

South Atlantic coast of the United States, from Chesapeake Bay to Galveston, Tex.; not common.

Larimus fasciatus Holbrook, Ichth. South Carolina, 1855, 153, pl. 22, fig. 1, Charleston, S. C.Genus 914. **ODONTOSCION** Gill.*Odontoscion* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 18 (*Corvina dentex* Cuvier and Valenciennes).2664. *Odontoscion dentex* (Cuvier and Valenciennes). *Corvina*.

West Indies, north to the Tortugas.

Corvina dentex Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 103 (139), pl. 109, San Domingo.2665. *Odontoscion xanthops* Gilbert.

Panama.

Odontoscion xanthops Gilbert in Jordan and Evermann, Check List, 1895, 396, Panama.

Genus 915. CORVULA Jordan and Eigenmann.

Corvula Jordan and Eigenmann, Review Sciaenidæ Europe and America, in Rept. U. S. Fish Com., XIV, 1886, 377 (35), (*Johnius batabanus* Poey).

2666. *Corvula batabana* (Poey).

Cuba and Porto Rico.

Johnius batabanus Poey, Memorias, II, 1861, 184, Batabano, south coast of Cuba.

Genus 916. VACUOQUA Jordan and Evermann.

Vacuqua Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Corvina macrops* Steindachner).

This genus differs from the aberrant *Corvula batabana* in having the deeper, symmetrical body and the silvery coloration of *Bairdiella* and related species.

2667. *Vacuqua macrops* (Steindachner). *Vacuqua*.

Pacific coast of tropical America; Mazatlan to Panama.

Corvina macrops Steindachner, Ichth. Beitr., III, 1875, 24, fig. 2. Panama.

2668. *Vacuqua sialis* (Jordan and Eigenmann).

Florida Keys.

Corvula sialis Jordan and Eigenmann, Rept. U. S. Fish Com., XIV, 1886, 379, Key West, Fla.

2669. *Vacuqua subæqualis* (Poey).

West Indies.

Corvina subæqualis Poey, Ann. Lyc. Nat. Hist. N. Y., XI, 1875, 58, Cuba.

2670. *Vacuqua sanctæ-luciæ* (Jordan).

West Indies.

Corvula sanctæ-luciæ Jordan, Proc. U. S. Nat. Mus., XII, 1889, 649, Port Castries, St. Lucia.

Genus 917. ELATTARCHUS Jordan and Evermann.

Elattarchus Jordan and Evermann, Check List, 1895, 397 (*Odontoscion archidium* Jordan and Gilbert).

2671. *Elattarchus archidium* (Jordan and Gilbert).

Panama.

Odontoscion archidium Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 317, Panama.

Genus 918. BAIRDIELLA Gill. *Mademoiselles*.

Bairdiella Gill, Cat. Fish. E. Coast N. Amer., Suppl. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 33 (*Bodianus argyroleucos* Mitchill = *Dipterodon chrysurus* Lacépède).

2672. *Bairdiella chrysura* (Lacépède). *Mademoiselle*; *Yellowtail*; *Silver perch*.

South Atlantic and Gulf coasts of United States, north to New York; very abundant on our sandy shores from Long Island to Texas.

Caranx chrysurus Lacépède, Hist. Nat. Poiss., III, 1802, 64, South Carolina; after Linnaeus.

Perca punctata Linnaeus, Syst. Nat., Ed. XII, 1766, 482, in part, South Carolina.

Bodianus argyro-leucos et *exiguus* Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 417, pl. 6, fig. 9, New York.

Bodianus pallidus Mitchill, loc. cit., 420, New York.

Homoprion subtruncatus Gill, Cat. Fish. E. Coast N. Amer., Suppl. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 33, South Carolina; after Holbrook.

2673. *Bairdiella ensifera* (Jordan and Gilbert).

Panama; common.

Sciaena ensifera Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 313, Bay of Panama; Punta Arenas.

Corvina fulgens Vaillant, Miss. Sci. au Mexique, 1883, 164, Pacific coast of Mexico.

2674. *Bairdiella icistia* (Jordan and Gilbert). *Corbineta*.
Pacific coast of Mexico; rather common about Mazatlan.
Scizena icistia Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 356, Mazatlan.
2675. *Bairdiella ronchus* (Cuvier and Valenciennes). *Ronco*; *Ground drummer*.
Atlantic coasts of tropical America; generally common in the West Indies and along the coast of Brazil.
Corvina ronchus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 79 (107), Maracaibo; Surinam.
2676. *Bairdiella bedoti* (Regan).
Cuba.
Scizena (*Bairdiella*) *bedotis* Regan, Rev. Suisse Zool., XIII, 1905, 391, Pl. VI, Cuba.
- Genus 919. **NECTOR** Jordan and Evermann.
Nector Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1432 (*Corvina chrysoleuca* Günther).
2677. *Nector armatus* (Gill).
Both coasts of tropical America; not uncommon on the Pacific coast about Panama, and equally abundant on the Atlantic coast.
Bairdiella armata Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 164, west coast of Central America.
Corvina acutirostris Steindachner, Ichth. Beitr., III, 1875, 28, pl. 4, Panama.
2678. *Nector veræ-crucis* (Jordan and Dickerson).
Gulf of Mexico, Vera Cruz.
Bairdiella veræ-crucis Jordan and Dickerson, Proc. U. S. Nat. Mus., XXXIV, 1908, 16, fig. 1, Vera Cruz, Mexico.
2679. *Nector alutus* (Jordan and Gilbert).
Pacific coast of Central America.
Scizena aluta Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 232, La Union, Salvador.
2680. *Nector chrysoleucus* (Günther).
Panama.
Corvina chrysoleuca Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 427, pl. 67, fig. 1, Panama.
- Genus 920. **STELLIFER** (Cuvier) Oken.
Les Stellifères Cuvier, Règne Anim., Ed. I, 1817, 283 (*Bodianus stellifer* Bloch).
Stellifer (Cuvier) Oken, Isis, I, 1817, 1182 (*Bodianus stellifer* Bloch).
Stelliferus Stark, Elem. Nat. Hist., 1, 1828, 459 (*Bodianus stellifer* Bloch).
Homoprion Holbrook, Ichth. South Car., 1st ed. (mostly destroyed by fire), 1855, 168 (*Homoprion lanceolatus* Holbrook).
2681. *Stellifer stellifer* (Bloch).
Coasts of Guiana and Brazil.
Bodianus stellifer Bloch, Naturgesch. Ausl. Fische, IV, 1790, 55, Cape of Good Hope.
Corvina trispinosa Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 80 (109), Brazil; Cayenne.
2682. *Stellifer lanceolatus* (Holbrook).
South Atlantic and Gulf coasts of United States, Charleston to Texas.
Homoprion lanceolatus Holbrook, Ichth. South Carolina, Ed. I, 1855, 168, pl. 23, Port Royal Sound, S. C.
2683. *Stellifer ericymba* (Jordan and Gilbert).
Panama.
Scizena ericymba Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 311, Bay of Panama.
2684. *Stellifer microps* (Steindachner).
Coast of Brazil and Guiana.
Corvina microps Steindachner, Ichth. Notizen, I, 1864, 6, pl. 2, fig. 1, Guiana.
Corvina stellifera Günther, Cat., II, 1860, 299, West Indies (not *Bodianus stellifer* Bloch).

2685. *Stellifer mindii* Meek and Hildebrand.
Atlantic coast of Panama.
Stellifer mindii Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 626, Pl. LXVI, fig. 2, Mindi Reef, near Colon.
- Genus 921. ZESTIS Gilbert.
Zestis Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1439 (*Stellifer oscitans* Jordan and Gilbert).
2686. *Zestis oscitans* (Jordan and Gilbert).
Panama.
Sciæna oscitans Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 312, Bay of Panama.
2687. *Zestis furthii* (Steindacher).
Panama.
Corvina (*Homoprion*) *fürthii* Steindachner, Ichth. Beitr., III, 1875, 26, fig. 3, Panama.
2688. *Zestis melanochir* (Eigenmann).
North coast of Colombia.
Stellifer melanochir Eigenmann, Proc. Am. Phil. Soc., LVI, 1917, 682, Tumneo.
- Genus 922. ZESTIDIUM Gilbert.
Zestidium Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1439 (*Stellifer illecebrosus* Gilbert).
2689. *Zestidium illecebrosus* (Gilbert).
Panama.
Stelliferus illecebrosus Gilbert, in Jordan and Evermann, Check List, 1895, 398, and Fishes North and Mid. Amer., 1896, 1443, Panama.
2690. *Zestidium colonense* (Meek and Hildebrand).
Coral reefs near Colon, Atlantic side of Isthmus of Panama.
Stellifer colonensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, 623, Mindi Reef, Colon.
- Genus 923. STELLICARENS Gilbert.
Stellicarens Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1445 (*Stellifer zestocarus* Gilbert).
2691. *Stellicarens zestocarus* (Gilbert).
Panama.
Stelliferus zestocarus Gilbert, in Jordan and Evermann, Check List, 1895, 398, and Fishes North and Mid. Amer., 1896, 1445, Panama.
- Genus 924. OPHIOSCION Gill.
Ophioscion Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 164 (*Ophiosion typicus* Gill).
2692. *Ophioscion adustus* (Agassiz).
West Indies to coast of Brazil.
Corvina adusta Agassiz, in Spix, Pisc. Brasil., 1829, 126, pl. 70, Brazil.
2693. *Ophioscion punctatissimus* Meek and Hildebrand.
Panama.
Ophioscion punctatissimus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1925, pt. 2, 644, Pl. LXVIII, Panama Canal at Cristobal.
2694. *Ophioscion typicus* Gill.
Panama.
Ophioscion typicus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 165, west coast Central America.
Corvina ophioscion Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 428, Panama.
2695. *Ophioscion strabo* Gilbert.
Panama.
Ophioscion strabo Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 444, San Juan Lagoön, south of Guaymas, Mexico.

2696. *Ophioscion simulus* Gilbert.

Panama.

Ophioscion simulus Gilbert, in Jordan and Evermann, Check List, 1895, 398, and Fishes North and Mid. Amer., 1896, 1449, Panama.2697. *Ophioscion imiceps* (Jordan and Gilbert).

Panama.

Sciæna imiceps Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 309, Bay of Panama.2698. *Ophioscion scierus* (Jordan and Gilbert).

Pacific coast of tropical America, from Mazatlan to Panama.

Sciæna sciera Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 480, Panama.Genus 925. *SIGMURUS* Gilbert.*Sigmurus* Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1446 (*Corvina vermicularis* Günther).2699. *Sigmurus vermicularis* (Günther).

Panama.

Corvina vermicularis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 427, pl. 67, fig. 2, Panama.Genus 926. *SCIÆNOPS* Gill. *Red drums.**Sciænops* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 30 (*Perca ocellata* Linnaeus).2700. *Sciænops ocellata* (Linnaeus). *Red drum; Channel bass; Redfish; Pescado colorado; Bull redfish; Bass; Red bass; Sea bass; Spotted bass; Spottail.*
South Atlantic and Gulf coasts of the United States, New York to Texas; very abundant south.*Perca ocellata* Linnaeus, Syst. Nat., Ed. XII, 1766, 483, South Carolina.*Lutjanus triangulum* Lacépède, Hist. Nat. Poiss., IV, 1802, 181, pl. 24, fig. 3, Sumatra.*Sciæna imberbis* Mitchill, Trans. Lit. and Phil. Soc. New York, 1815, 411, New York.Genus 927. *CALLAUS* Jordan.*Callaus* Jordan, Rept. U. S. Fish Com., XIV, 1886, 401, 406 (59) (*Corvina deliciosa* Tschudi).2701. *Callaus deliciosa* (Tschudi).

Pacific coast of South America, from Panama to Peru.

Corvina deliciosa Tschudi, Fauna Peruana, Ichthyol., 1845, 8, Peru.Genus 928. *RHINOSCION*⁶⁴ Gill. *Red roncadors.**Rhinoscion* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 17 (*Ambiodon saturnus* Girard).2702. *Rhinoscion saturnus* (Girard). *Red roncador; Black croaker.*

Coast of southern California, from Santa Barbara to Cedros Island.

Ambiodon saturnus Girard, U. S. Pac. R. R. Surv., 1858, 98, San Diego, Calif.*Corvina (Johnius) jacobii* Steindachner, Ichth. Beitr., VIII, 1879, 3, San Diego; young.Genus 929. *RONCADOR* Jordan and Gilbert.*Roncador* Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 28 (*Corvina stearnsi* Steindachner).2703. *Roncador stearnsi* (Steindachner). *Roncador.*

Coast of southern California, north to Santa Barbara.

Corvina stearnsi Steindachner, Ichth. Beitr., III, 1875, 22, San Diego, Calif.Genus 930. *LEIOSTOMUS* Lacépède. *Goodies.**Leiostomus* Lacépède, Hist. Nat. Poiss., IV, 1803, 439 (*L. xanthurus* Lacépède).*Leiostomus* authors, revised spelling.⁶⁴ This genus is very close to the European genus *Corvina* on the one hand and to the Peruvian *Chilotrema* on the other, but probably deserves to stand alone. There is no genuine species in America of *Sciæna* as now restricted.

2704. *Leiostomus xanthurus* Lacépède. *Spot; Goody; Posteroaker; Oldwife; Lafayette; Cape May goody; Porgy; Yellowtail.*
South Atlantic and Gulf coasts of United States; Cape Cod to Texas; once doubtfully recorded from Martinique.
Leiostomus xanthurus Lacépède, Hist. Nat. Poiss., IV, 1802, 439, pl. 10, fig. 1, Carolina.
Mugil obliquus Mitchell, Trans. Lit. Phil. Soc. New York, 1815, 405, New York.
Sciæna multifasciata LeSueur, Jour. Acad. Nat. Sci. Phila., II, 1821, 255, east Florida.
Leiostomus humeralis Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 105 (141), pl. 110, New York.
- Genus 931. **PACHYPOPS** Gill.
Pachypops Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 87 (*Micropogon trifilis* Müller and Troschel).
2705. *Pachypops furcraea* (Lacépède).
Rivers and estuaries of Guiana.
Perca furcraea Lacépède, Hist. Nat. Poiss., IV, 1802, 398, 424, Surinam.
Corvina biloba Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 83 (112), habitat unknown.
- Genus 932. **GENYONEMUS** Gill.
Genyonemus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 87 (*Leiostomus lineatus* Ayres).
2706. *Genyonemus lineatus* (Ayres). *Little roncador; Kingfish; Croaker.*
Coast of southern California, San Francisco to Cedros Island.
Leiostomus lineatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 24, San Francisco.
- Genus 933. **MICROPOGON** Cuvier and Valenciennes. *Croaker.*
Micropogon Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 158 (213) (*M. lineatus* Cuvier and Valenciennes = *Perca undulata* Linnaeus).
Micropogonias Bonaparte, Ittiologia Generale, 1831, 104 (*Perca undulata* Linnaeus; substitute for *Micropogon* said to be preoccupied; but the genus of birds so named dates from 1838).
2707. *Micropogon undulatus* (Linnaeus). *Croaker; Roncodina; Corvina; Hardhead.*
South Atlantic and Gulf coasts of United States; Cape Cod to Texas.
Perca undulata Linnaeus, Syst. Nat., Ed. XII, 1766, 483, South Carolina.
Sciæna croker Lacépède, Hist. Nat. Poiss., IV, 1802, 309, Carolinas.
Bodianus costatus Mitchell, Trans. Lit. Phil. Soc. New York, 1815, 417, New York.
Micropogon lineatus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 160 (215), pl. 119, New York.
2708. *Micropogon furnieri* (Desmarest). *Verrugato; Whitemouth drummer.*
West Indies and coasts of South America.
Umbrina furnieri Desmarest, Première Décade Ichth., 22, pl. 2, fig. 3, 1823, 182, Habana.
? *Micropogon argenteus* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 162 (218), Surinam.
2709. *Micropogon megalops* Gilbert.
Gulf of California.
Micropogon megalops Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 64, Gulf of California in 14 fathoms at Albatross station 3021.
2710. *Micropogon ectenes* Jordan and Gilbert. *Verrugate.*
Pacific coast of Mexico, Mazatlan.
Micropogon ectenes Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 355, Mazatlan.
2711. *Micropogon altipinnis* Günther.
Panama.
Micropogon altipinnis Günther, Proc. Zool. Soc. Lond., 1864, 149, San Jose; Panama; Chiapam.

Genus 934. **UMBRINA** Cuvier.

Umbrina Cuvier, Règne Anim., Ed. I, II, 1817, 297 (*Sciæna cirrhosa* Linnæus).

Attilus Gistel, Naturgesch. d. Thierreichs, 1848, 109 (*Sciæna cirrhosa* Linnæus).

2712. **Umbrina broussonnetii** Cuvier and Valenciennes.

West Indies; Florida to Brazil.

Umbrina broussonnetii Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 139 (187), Jamaica.

2713. **Umbrina coroides** Cuvier and Valenciennes.

Southern Florida to the West Indies and Brazil.

Umbrina coroides Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 139 (187), Brazil.

2714. **Umbrina gracilicirrhus** Metzelaar.

Coast of Venezuela.

Umbrina gracilicirrhus Metzelaar, Tropisch Atlantisch Vissch., 1919, 72, coast of Venezuela.

2715. **Umbrina roncadore** Jordan and Gilbert. *Yellow-finned roncadore*;
Yellow-tailed croaker.

Coast of southern California, from Point Conception to Guaymas.

Umbrina roncadore Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 277, Pequena Bay, west coast of Lower California.

2716. **Umbrina xanti** Gill. *Codorniz*.

Pacific coast of tropical America, Cape San Lucas to Panama.

Umbrina xanti Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 257, Cape San Lucas.

Umbrina analis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 426. Panama.

2717. **Umbrina sinaloæ** Scofield.

Pacific coast of Mexico; Mazatlan.

Umbrina sinaloæ Scofield, Proc. Calif. Acad. Sci., VI, 1896, 220, Pl. XXV, Mazatlan, Mexico.

2718. **Umbrina dorsalis** Gill.

Pacific coast of Mexico.

Umbrina dorsalis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 257, Cape San Lucas.

Genus 935. **MENTICIRRHUS** Gill. *Kingfishes*.

Menticirrhus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 86 (*Perca alburnus* Linnæus = *Cyprinus americanus* Linnæus).

2719. **Menticirrhus americanus** (Linnæus). *Carolina whiting*; *Sand whiting*;
Kingfish; *Sea smelt*; *Sea mullet*.

South Atlantic and Gulf coasts of United States; Chesapeake Bay to Texas.

Cyprinus americanus Linnæus, Syst. Nat., Ed. X, 1758, 321, Carolinas; (based on *Alburnus americanus* the whiting of Catesby, nonbinomial; not *Cyprinus americanus* of 12th edition of Systema Naturæ, which is a cyprinoid, *Abramis bosci* Cuvier and Valenciennes).

Perca alburnus Linnæus, Syst. Nat., Ed. XII, 1766, 482. Charleston, S. C.

Umbrina phalæna Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 167, Indianola and Brazos Santiago, Tex.

2720. **Menticirrhus saxatilis** (Bloch and Schneider). *Kingfish*; *Sea mink*;
Northern whiting; *Hake*; *Barb*.

Atlantic and Gulf coasts of the United States; Cape Ann to Key West and Pensacola; most common northward.

Johnius saxatilis Schneider, Ed. Bloch, Syst. Ichth., 1801, 75, New York.

2721. **Menticirrhus undulatus** (Girard). *California whiting*; *Sand sucker*.

Southern California, north to Santa Barbara.

Umbrina undulata Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 148, San Diego, Calif.

- 2722. *Menticirrhus martinicensis*** (Cuvier and Valenciennes). *Jewsharp drummer*.
West Indies; Martinique; Jamaica to Patagonia; common in Brazil.
Umbrina martinicensis Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 186, Martinique.
Umbrina gracilis Cuvier and Valenciennes, loc. cit., 1830, 186, Brazil.
Umbrina arenata Cuvier and Valenciennes, loc. cit., 141 (190), Brazil.
Umbrina januaria Steindachner, Ichth. Beitr., V, 1876, 122, Rio Janeiro.
- 2723. *Menticirrhus nasus*** (Günther).
Panama.
Umbrina nasus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 426, Panama.
Menticirrhus sinus Jordan and Eigenmann, Review Sciaenidae, Rept. U. S. Fish Com., XIV, 1886, 427, Mazatlan and Panama.
- 2724. *Menticirrhus panamensis*** (Steindachner).
Pacific coast of tropical America; Mazatlan to Panama.
Umbrina panamensis Steindachner, Ichth. Beitr., IV, 1875, 9, Panama.
- Genus 936. UMBRULA** Jordan and Eigenmann.
Umbrula Jordan and Eigenmann, Review Sciaenidae, Rept. U. S. Fish Com., XIV, 1886, 424 (*Umbrina littoralis* Holbrook).
- 2725. *Umbrula littoralis*** (Holbrook). *Surf whiting; Silver whiting; Shore whiting*.
South Atlantic and Gulf coasts of United States, North Carolina to Texas.
Umbrina littoralis Holbrook, Ichth. South Carolina, Ed. I, 1855, 142, pl. 20, fig. 1, South Carolina.
- 2726. *Umbrula elongata*** (Günther). *Verrugata*.
Pacific coast of tropical America, Mazatlan to Panama.
Umbrina elongata Günther, Proc. Zool. Soc. Lond., 1864, 148, Chiapam.
- Genus 937. PARALONCHURUS** Bocourt.
Paralanchurus Bocourt, Nouv. Arch. Mus. d'Hist. Nat., IV, 1869, 21 (*P. petersi* Bocourt).
- 2727. *Paralanchurus petersi*** Bocourt.
Coast of Central America; rare at Panama.
Paralanchurus petersi Bocourt, Nouv. Archiv. du Muséum, IV, 1869, 22, La Union, San Salvador.
- Genus 938. POLYCLEMUS** Berg. *Corvalos*.
Polycirrhus Bocourt, Nouv. Arch. Mus. Paris, IV, 1869, 22 (*P. dumerili* Bocourt); name preoccupied in worms.
Polyclemus Berg, Ann. Mus. Nac. Buenos Aires, IV, 1895, 52 (*Polycirrhus dumerili* Bocourt).
- 2728. *Polyclemus dumerili*** (Bocourt).
Panama.
Polycirrhus dumerili Bocourt, Nouv. Arch. Mus. d'Hist. Nat., IV, 1869, 23, La Union, San Salvador.
Genyonemus fasciatus Steindachner, Ichth. Beitr., II, 1875, 31, Panama.
- Genus 939. ZONOSCION** Jordan and Evermann.
Zonoscion Jordan and Evermann, Check List, 1895, 401 (*Polycirrhus rathbuni* Jordan and Bollman).
- 2729. *Zonoscion rathbuni*** (Jordan and Bollman).
Panama.
Polycirrhus rathbuni Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 162, Panama.
- Genus 940. ZACLEMUS** Gilbert.
Zaclemus Gilbert, in Jordan and Evermann, Check List, 1895, 401 (*Paralanchurus goodei* Gilbert).
- 2730. *Zaclemus goodei*** (Gilbert).
Panama.
Paralanchurus goodei Gilbert, in Jordan and Evermann, Check List, 1895, 401, and Fishes North and Mid. Amer., 1896, 1480, Panama.

Genus 941. LONCHIURUS Bloch.

Lonchiurus Bloch, Naturgesch. Ausl. Fische, VII, 1793, 144 (*Lonchiurus barbata* Bloch = *Perca lanceolata* Bloch).

Lonchurus authors, preferred spelling.

2731. *Lonchiurus lanceolatus* (Bloch).

West Indies to Guiana.

Perca lanceolata Bloch, Nov. Act. Sc., Copenh., III, 1788, 383, India.

Lonchiurus depressus Bloch, Naturgesch. Ausl. Fische, VII, 1793, 144, Surinam.

Genus 942. POGONIAS Lacépède. Sea drums.

Pogonias Lacépède, Hist. Nat. Poiss., III, 1802, 138 (*P. fasciatus* Lacépède = *Labrus cromis* Linnæus).

Pogonathus Lacépède, loc. cit., V, 1803, 121 (*P. courbina* Lacépède).

Pogonathus Bonaparte, Ittiologia Generale, 1831 (*Pogonias fasciatus* Lacépède).

2732. *Pogonias cromis* (Linnæus). Gray drum; Drum; Black drum; Drumfish; Banded drum; Big drum.

Atlantic coast of America; Long Island to mouth of Rio Grande.

Labrus cromis Linnæus, Syst. Nat., Ed. XII, 1766, 479, Carolinas.

Pogonias fasciatus Lacépède, Hist. Nat. Poiss., III, 1802, 137.

Mugil grunniens Mitchill, Rept. in part, Fishes New York, 1814, 15, New York.

Sciæna fusca Mitchill, Trans. Lit. Phil. Soc. N. Y., 1815, 409, New York.

Sciæna gigas Mitchill, loc. cit., 412, New York.

2733. *Pogonias courbina* (Lacépède).

Guiana to Uruguay; rather common on coast of Brazil.

Pogonathus courbina Lacépède, Hist. Nat. Poiss., V, 1803, 121, Rio de la Plata.

Genus 943. APLODINOTUS Rafinesque. River drums; Thunderpumpers.

Aplodinotus Rafinesque, Jour. de Phys., LXXXVIII, 1819, 418 (*A. grunniens* Rafinesque).

Ambledon Rafinesque, Jour. de Phys., 1819, 421, based on teeth supposed to belong to *Ictiobus*, later restricted by Rafinesque to *Ambledon grunniens*.

Eutychelithus Jordan, Man. Vert., Ed. I, 1876, 242 (*Corvina richardsoni* Cuvier and Valenciennes, an injured or deformed example of *A. grunniens*).

Haplodonotus Gill, revised spelling.

2734. *Aplodinotus grunniens* Rafinesque. Fresh-water drum; Gaspergou; Thunderpumper; Lake sheepshead; Croaker; Bubbler; White perch.

Great Lakes to Texas; abundant in lakes and large streams between the Alleghenies and the Great Plains.

Aplodinotus grunniens Rafinesque, Jour. de Phys., 1819, 88, Ohio River.

Sciæna oscula LeSueur, Jour. Acad. Nat. Sci. Phila., 1822, 252, pl. 13, Lake Ontario.

Sciæna grisea LeSueur, loc. cit., 254, Ohio River at Pittsburgh, Pa.

Corvina richardsoni Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 100, Lake Huron, based on an abnormal specimen.

Ambledon concinnus Agassiz, Amer. Jour. Sci. Arts, XVII, 1854, 307, Tennessee River.

Ambledon lineatus Agassiz, loc. cit., 307, Osage River, Mo.

2735. *Aplodinotus neglectus* (Girard).

Streams of eastern Mexico from Rio Grande to Rio Usumacinta.

Ambledon neglectus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 167, mouth of the Rio Grande; Rio Usumacinta. This Mexican form apparently distinguished by larger scales (43 instead of 55 to 60).

Genus 944. EQUETUS Rafinesque.

Eques Bloch, Nat. Ausl. Fische, VII, 1793, 91 (*E. americanus* Bloch = *Chætodon lanceolatus* Linnæus); preoccupied.

Equetus Rafinesque, Anal. Nat., 1815, 89; substitute for *Eques* Bloch.

2736. *Equetus lanceolatus* (Linnæus). *Ribbonfish*; *Guapena*; *Serrana*.
West Indies, ranging northward to Pensacola.
Ribbon fish, Edwards, Gleanings, pl. 210, 1758, Guadeloupe; Carolina.
Chætodon lanceolatus Linnæus, Syst. Nat., Ed. X, 1758, 277, "Caribbean Islands"; based on Edwards, pl. 210.
? *Serrana* Parra, Piezas, d'Hist. de Cuba, 1787, pl. 2, Cuba.
Eques americanus Bloch, Nat. Ausl. Fische, VII, 1793, West Indies.
Eques balleatus Cuvier, Règne Anim., ed. 2, II, 1829, 175, pl. 29, fig. 2, Martinique, after Edwards.
Sciæna edwardi Gronow, Cat. Fish., ed. Gray, 1854, 53, after Edwards.
- Genus 945. **PAREQUES** Gill.
Pareques Gill in Goode, Bull. U. S. Nat. Mus., V, 1875, 50 (*Grammistes acuminatus* Bloch and Schneider).
2737. *Pareques viola* (Gilbert).
Panama.
Eques viola Gilbert in Jordan and Evermann, Check List, 1895, 402, Panama.
2738. *Pareques acuminatus* (Bloch and Schneider).
West Indies; South Carolina to Brazil.
Grammistes acuminatus Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 184, no locality; after Seba.
Eques lineatus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 126 (169), Brazil.
2739. *Pareques umbrosus* (Jordan and Eigenmann).
Southeast coast of the United States, Charleston to Pensacola.
Eques acuminatus umbrosus Jordan and Eigenmann, Review Sciencidæ, Rept. U. S. Fish Com., XIV, 1886, 440, Charleston and Pensacola.
2740. *Pareques punctatus* (Bloch and Schneider). *Serrana hispana*.
West Indies.
Serrana hispanis Parra, Piezas, Hist. Nat. Cuba, 1787, 2, pl. 2, lower figure, Cuba.
Eques punctatus Bloch and Schneider, Syst. Ichth., 1801, 106, Cuba; based on Parra, 2, pl. 2, fig. 2.
2741. *Pareques pulcher* (Steindachner).
Tortugas Archipelago; Barbados.
Eques pulcher Steindachner, Ichth. Notizen, VI, 1867, 43, Barbados.

Family 214. OTOLITHIDÆ. Weakfishes; Queenfishes

Genus 946. **SERIPHUS** Ayres.

Seriphus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862 (1863; read Nov. 5, 1860), 80 (*S. politus* Ayres).

2742. *Seriphus politus* Ayres. *Queenfish*; *White croaker*.
Coast of southern California from Point Conception to Cedros Island; common on sandy shores.
Seriphus politus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862 (1863; read Nov. 5, 1860), 80, fig. 21, about San Diego.

Genus 947. **ISOPISTHUS** Gill.

Isopisthus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 18 (*Ancylodon parvipinnis* Cuvier and Valenciennes).

2743. *Isopisthus parvipinnis* (Cuvier and Valenciennes).
Coast of Brazil, north to Cayenne and Guiana.
Ancylodon parvipinnis Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 62 (84), pl. 105, Cayenne.
Isopisthus affinis Steindachner, Denksch. Mat. Nat. Kais. Acad. Wiss., XLI, Bd. I., Abth., 1879, 43, pl. 2, fig. 2, Porto Alegre, Brazil.
2744. *Isopisthus remifer* Jordan and Gilbert.
Panama, on sandy shores, rather common.
Isopisthus remifer Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 320, Panama.

2745. *Isopisthus harroweri* Fowler.

Atlantic shore of Central America.

Isopisthus harroweri Fowler, Proc. Acad. Nat. Sci. Phila., LXVIII, 1916, 402, Colon.

Genus 948. NEBRIS Cuvier and Valenciennes.

Nebris Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 111 (149) (*N. microps* Cuvier and Valenciennes).

2746. *Nebris microps* Cuvier and Valenciennes.

Atlantic coast of northern South America; sandy shores.

Nebris microps Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 111 (149), pl. 112, Surinam.

2747. *Nebris occidentalis* Vaillant. *Guavina*.

Pacific coast of tropical America.

Nebris occidentalis Vaillant, Bull. Mus. Paris, 1897, 124, Pacific coast of Central America.

Nebris zæstus Jordan and Starks, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1417, Panama.

Genus 949. MACRODON Schintz.

Ancylodon Cuvier, in Oken, Isis, 1817, 1182 (*Lonchurus ancylodon* Schneider); name preoccupied in mammals.

Macrodon Schintz, Das Thierreich, II, 1822, 482 (*Lonchurus ancylodon* Schneider).

Nomalmus Gistel, Thierreich, X, 1848, substitute for *Ancylodon*.

Sagenichthys Carlos Berg, Ann. Mus. Nat. Buenos Aires, 1895, 42 (*Lonchurus ancylodon* Schneider); substitute for *Ancylodon*.

2748. *Macrodon ancylodon* (Bloch and Schneider). *Pescadillo del rey*.

West Indies; Guiana; Brazil; and Uruguay; rather scarce.

Lonchurus ancylodon Bloch and Schneider, ed. Bloch, Syst. Ichth., 1801, 102, pl. 25, Surinam.

Ancylodon jaculidens Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 60 (81), Cayenne.

2749. *Macrodon mordax* (Gilbert and Starks).

Panama.

Sagenichthys mordax Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 121, Pl. XVI, Panama.

Genus 950. BUCCONE Jordan and Evermann.

Buccone Jordan and Evermann, Check List, 1895, 394 (*Cestreus prædatorius* Jordan and Gilbert).

2750. *Buccone prædatoria* (Jordan and Gilbert). *Bocone*.

Coast of Panama; scarce.

Cestreus prædatorius Jordan and Gilbert, Rept. U. S. Fish Com., XIV, 1886, 363, Panama.

Genus 951. CYNOSCION Gill.

Cestreus Gronow, Cat. Fish., ed. Gray, 1854, 49 (*Cestreus carolinensis* Gronow=*Otolithus nebulosus* Cuvier and Valenciennes); preoccupied in gobies.

Cynoscion Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 81 (*Johnius regalis* Bloch and Schneider).

Apeudobranchus Gill, loc. cit., XIV, 1862, 18 (*Otolithus tæ-ræ* Cuvier and Valenciennes=*Cheilodipterus acoupa* Lacépède).

Subgenus CYNOSCION Gill.**2751. *Cynoscion acoupa* (Lacépède). *Acoupa*; *Toeroe*.**

Atlantic coast of South America, Brazil north to Venezuela; generally common.

Cheilodipterus acoupa Lacépède, Hist. Nat. Poiss., III, 1802, 546, Cayenne.

Lutjanus cayanensis Lacépède, loc. cit., IV, 1802, 196, Cayenne.

Otolithus rhomboidalis Cuvier, Règne Anim., ed. 2, II, 1829, 173, Cayenne.

Otolithus toe-roë Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 54 (72), pl. 103, Cayenne.

2752. **Cynoscion squamipinnis** (Günther).
Pacific coast of tropical America; known from a few specimens taken at La Union and Panama.
Otolithus squamipinnis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 387, 429, Panama.
2753. **Cynoscion othonopterus** Jordan and Gilbert.
Gulf of California.
Cynoscion othonopterus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 274, Punta San Felipe, Mexico.
2754. **Cynoscion obliquatus** (Cuvier and Valenciennes).
Martinique.
Otolithus obliquatus Cuvier and Valenciennes, in Sauvage, Bull. Soc. Philom. Paris, III, 1879, 209, Martinique.
2755. **Cynoscion jamaicensis** (Vaillant and Bocourt). *Mongolar drummer*.
Jamaica and Porto Rico.
Otolithus jamaicensis Vaillant and Bocourt, Miss. Sci. au Mexique, Poissons, 1874, 156, Jamaica.
2756. **Cynoscion regalis** (Bloch and Schneider). *Common weakfish; Squeteague; Sea trout; Squit; Shecutts; Chickwick; Salt-water trout; Gray trout*.
Atlantic and Gulf coasts of United States, Cape Cod southward to Mobile.
Johnius regalis Bloch and Schneider, Syst. Ichth., 1801, 75, New York.
Roccus comes Mitchill, Report, in part, Fishes New York, 1814, 25, New York.
Labrus squeteague Mitchill, Trans. Lit. Phil. Soc. New York, 1815, 396, pl. 2, fig. 1, New York.
2757. **Cynoscion nothus** (Holbrook). *Bastard weakfish*.
South Atlantic and Gulf coasts of United States; rather rare at Charleston. This unspotted fish is now generally regarded as a pale variant of *Cynoscion regalis*.
Otolithus nothus Holbrook, Ichth. South Carolina, 1855, 134, pl. 19, fig. 1, South Carolina.
2758. **Cynoscion thalassinus** (Holbrook).
Pensacola; Pass Christian, Miss.; Hampton Roads, Va.
Otolithus thalassinus Holbrook, Ichth. South Carolina, 1855, 132, pl. 18, fig. 2, Charleston, S. C.
2759. **Cynoscion leiarchus** (Cuvier and Valenciennes).
Coasts of Brazil and Guiana.
Otolithus leiarchus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 58 (78), Brazil; Cayenne.
2760. **Cynoscion microlepidotus** (Cuvier and Valenciennes).
Coast of Brazil and Guiana.
Otolithus microlepidotus Cuvier and Valenciennes, Hist. Nat. Poiss.; V, 1830, 59 (79), Surinam.
- Genus 952. **ERISCION** Jordan and Evermann.
Eriscion Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Otolithus nebulosus* Cuvier and Valenciennes).
2761. **Eriscion reticulatus** (Günther). *Corvina*.
Pacific coast of tropical America, Mazatlan to Panama.
Otolithus reticulatus Günther, Proc. Zool. Soc. Lond., 1864, 149, San Jose de Guatemala; Chiapam.
2762. **Eriscion nebulosus** (Cuvier and Valenciennes). *Spotted weakfish; Spotted sea trout; Spotted Squeteague*.
South Atlantic and Gulf coasts of the United States; New York to Texas; everywhere common on our southern coast; rare north of Virginia.
Labrus squeteague maculatus Mitchill, Trans. Lit. Phil. Soc., 1815, 396, New York; not *Labrus maculatus* Bloch.
Otolithus nebulosus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 59 (79), locality unknown.
Otolithus carolinensis Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 351, (475), South Carolina.
Otolithus drummondi Richardson, Fauna Bor.-Amer., Fish., 1836, 70, New Orleans.

2763. *Eriscion parvipinnis* (Ayres). *California bluefish*.
Coast of Lower California; Santa Barbara Islands to Guaymas;
common along the coasts of southern California as far north as
San Pedro.
Cynoscion parvipinnis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862
(read Dec. 1, 1861, published Sept., 1862), 156, fig. 48, coast of
Lower California.
Otolithus magdalenæ Steindachner, Ichth. Beit., III, 1875, 34, Mag-
dalena Bay, Lower California.
2764. *Eriscion xanthulus* (Jordan and Gilbert). *Corvina de las aletas amaril-
las*; Yellowmouth.
Pacific coast of Mexico; not rare about Mazatlan.
Cynoscion xanthulum Jordan and Gilbert, Proc. U. S. Nat. Mus., IV,
1881, 460, Mazatlan.
2765. *Eriscion albus* (Günther).
Pacific coast of tropical America.
Otolithus albus Günther, Proc. Zool. Soc. Lond., 1864, 149, Chiapam;
Panama.
Otolithus cayennensis Vaillant and Bocourt, Miss. Sci. Mexique, Poiss.,
1874, 156, La Union, Salvador.
2766. *Eriscion stolzmanni* (Steindachner).
Pacific coast of tropical America, from Panama to Peru.
Otolithus stolzmanni Steindachner, Denkschr. Mat. Nat. Kais. Acad.
Wiss., XLI, Bd. I, Abth. 35, 1879, pl. 2, fig. 1, Tumbes, Peru.
2767. *Eriscion virescens* (Cuvier and Valenciennes).
Coasts of Guiana and Brazil.
Otolithus virescens Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830,
54 (72), Surinam.
Otolithus microps Steindachner, Denkschr. Mat. Nat. Kais. Acad.
Wiss., XLI, Bd. I, Abth. 38, 1879, pl. 8, fig. 2, Porto Alegre, Brazil.
2768. *Eriscion macdonaldi* (Gilbert). *Totuava*.
Gulf of California.
Cynoscion macdonaldi Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 64,
head of Gulf of California.
- Genus 953. *ATRACTOSCION* Gill.
Atractoscion Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 18 (*Otolithus
æquidens* Cuvier and Valenciennes).
2769. *Atractoscion nobilis* (Ayres). *White sea bass of California*.
Coast of California, north to San Francisco, occasionally straying as
far north as Boca de Quadra Inlet, Alaska.
Johnius nobilis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 77, San
Francisco.
Otolithus californiensis Steindachner, Ichth. Beitr., III, 1875, 31, San
Diego, Calif., and Magdalena Bay, Lower California.
2770. *Atractoscion phoxocephalus* (Jordan and Gilbert).
Pacific coast of tropical America; Panama.
Cynoscion phoxocephalum Jordan and Gilbert, Bull. U. S. Fish Com.,
I, 1881, 318, Panama.

Family 215. MALACANTHIDÆ. Matajuelos

Genus 954. MALACANTHUS Cuvier.

Malacanthus Cuvier, Règne Animal, ed. 2, II, 1829, 264 (*Coryphæna
plumieri* Bloch).

2771. *Malacanthus plumieri* (Bloch). *Matajuelo blanco*.
West Indies, generally common.
Coryphæna plumieri Bloch, Ichth., V, 1787, 119, pl. 175, Martinique;
from a drawing by Plumier.

Family 216. BRANCHIOSTEGIDÆ.⁶⁵ Blanquillos

Genus 955. CAULOLATILUS Gill.

Caulolatilus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 240 (?*Latilus chrysops* Cuvier and Valenciennes).

Dekaya Cooper, Proc. Calif. Acad. Nat. Sci., III, pt. 1, 1863 (Nov.), 70, fig. 17 (*D. anomala* Cooper).

2772. *Caulolatilus chrysops* (Cuvier and Valenciennes). *Blanquillo*.

Gulf of Mexico and southward.

Latilus chrysops Cuvier and Valenciennes, Hist. Nat. Poiss., IX, 1833, 496, Brazil.

2773. *Caulolatilus microps* Goode and Bean.

Gulf of Mexico.

Caulolatilus microps Goode and Bean, Proc. U. S. Nat. Mus., I, 1878, 43, off Pensacola, Fla.

2774. *Caulolatilus princeps* (Jenyns). *Blanquillo*.

Cape San Lucas to the Galapagos.

Latilus princeps Jenyns, Zool. Voy. *Beagle*, Fishes, 1842, 52, Chatham Island, Galapagos Archipelago.

Caulolatilus affinis Gill, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 68, Cape San Lucas.

2775. *Caulolatilus anomalus* (Cooper). *Blanquillo*; *Sea whitefish*.

Coast of southern California, about rocky islands from Point Conception southward; common.

Dekaya anomala Cooper, Proc. Calif. Acad. Nat. Sci., III, pt. 1, 1863 (Nov.), 70, fig. 17, Santa Catalina Island off southern California.

2776. *Caulolatilus cyanops* Poey. *Blanquillo*.

Coasts of Cuba and Porto Rico.

Caulolatilus cyanops Poey, Repertorio, I, 1866, 311-312, Cuba.

Genus 956. LOPHOLATILUS Goode and Bean. *Tilefish*.

Lopholatilus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 205 (*L. chamæleonticeps* Goode and Bean).

2777-2778. *Lopholatilus chamæleonticeps* Goode and Bean. *Tilefish*.

Deep waters of the western Atlantic; abundant at intervals but subject to calamities; a valued food fish.

Lopholatilus chamæleonticeps Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 205; 80 miles S. by E. of No-man's Land, 40° N., 70° W., in 84 fathoms.

Family 217. TRICHODONTIDÆ

Genus 957. TRICHODON Steller.

Trichodon Steller, in Tilesius, Mém. Acad. St. Petersb., IV, 1811, 468 (*Trachinus trichodon* Tilesius).

2779. *Trichodon trichodon* (Tilesius). *Sandfish*.

Coasts of Kamchatka and eastward; Herendeen Bay and elsewhere in Bering Sea, and south to coast of Oregon.

Trachinus trichodon Tilesius, Mém. Acad. St. Petersb., IV, 1811, fig. 8, 73, Kamchatka.

Trachinus gasteropelecus Tilesius, loc. cit., 1811, 466, Kamchatka.

Trichodon lineatus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1860, 60, San Francisco.

Genus 958. ARCTOSCOPUS Jordan and Evermann.

Arctoscopus Jordan and Evermann, Check List, 1895, 464 (*Trichodon japonicus* Steindachner).

2780. *Arctoscopus japonicus* (Steindachner).

Sea of Japan, eastward to Sitka, Alaska.

Trichodon japonicus Steindachner, Ichth. Beitr., X, 1881, 4 Strietok and Sitka.

⁶⁵ The name *branchistegus* Rafinesque (1815) has priority over *Latilus* Cuvier and Valenciennes (1830).

Family 218. CIRRHITIDÆ

Genus 959. CIRRHITUS Lacépède.

Cirrhitus Lacépède, Hist. Nat. Poiss., V, 1803, 3 (*C. maculatus* Lacépède).
Cirrhitichthys Günther, Cat., II, 1860, 73; not of Bleeker.
Cirrhites of authors; revised spelling.

2781. *Cirrhitus rivulatus* (Valenciennes).

Cape San Lucas to the Revillagigedos and Galapagos Islands.
Cirrhites rivulatus Valenciennes, Voy. *Vénus*, Poiss., 1855, 309, pl. 3,
 fig. 1, Galapagos Islands.
Cirrhitus betaurus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 259,
 Cape San Lucas; young.

Family 219. ANTIGONIIDÆ

Genus 960. ANTIGONIA Lowe.

Antigonia Lowe, Proc. Zool. Soc. Lond., 1843, 85 (*A. capros* Lowe).
Caprophonus Müller and Troschel, Horæ Ichth., III, 1845, 28, pl. 5,
 fig. 1 (*C. aurora* Müller and Troschel).
Hypsinotus Temminck and Schlegel, Faun. Japon., Poiss., 1844, 84
 (*H. rubescens* Günther).

2782. *Antigonia capros* Lowe.

Tropical Atlantic, in rather deep water.
Antigonia capros Lowe, Proc. Zool. Soc. Lond., 1843, 85, Madeira.
Caprophonus aurora Müller and Troschel, Horæ Ichthyologicæ, III,
 1845, p. 28, pl. 5, fig. 1, Barbados.

Family 220. SCORPIDÆ. Halfmoon fishes

Genus 961. MEDIALUNA Jordan and Fesler.

Medialuna Jordan and Fesler, Rept. U. S. Fish Com., XVII, 1889-1891,
 536 (*Scorpius californiensis* Steindachner).

2783. *Medialuna californiensis* (Steindachner). *Medialuna*; *Halfmoon*.

Coast of southern California from Point Conception southward to
 Cedros Island.
Scorpius californiensis Steindachner, Ichth. Beitr., III, 1875, 19, San
 Diego.

Suborder SQUAMIPENNES

Family 221. EPHIPPIDÆ

Genus 962. CHÆTODIPTERUS Lacépède.

Chætodipterus Lacépède, Hist. Nat. Poiss., IV, 1803, 503 (*Chætodon
 plumieri* Bloch = *Chætodon faber* Broussonet).
Parephippus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Ephip-
 pus zonatus* Girard).

2784. *Chætodipterus faber* (Broussonet). *Angelfish*; *Spadefish*; *Moonfish*;
Tripletail; *Three-banded sheephead*; *Three-tailed porgy*.

West Indies, Cape Cod to Rio Janeiro, south Atlantic coast.
Faber marinus fere quadratus (the pilotfish) Sloane, Jamaica, II, 1793,
 290, pl. 251, Jamaica.
Chætodon faber Broussonet, Ichth., V, Dec. 1, 1782, pl. 4, Jamaica.
Zeus quadratus Gmelin, Syst. Nat., I, 1788, 1225, Jamaica; after
 Sloane.
Chætodon plumieri Bloch, Naturgesch. Ausl. Fische, III, 1787, 104,
 Martinique.
Selene quadrangularis Lacépède, Hist. Nat. Poiss., IV, 1803, 564,
 Jamaica; after Sloane.
Chætodon oviformis Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 247,
 pl. 5, fig. 4, New York.
Ephippus gigas Cuvier, Règne Anim., ed. 2, II, 1829, 191, America.

2785. *Chætodipterus zonatus* (Girard).

Pacific coast of America, from San Diego to Panama; common south-
 ward.
Ephippus zonatus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 110,
 San Diego, Calif.

Genus 963. PARAPSETTUS Steindachner.

Parapsettus Steindachner, Ichth. Beitr., III, 1875, 50 (*P. panamensis* Steindachner).

2786. Parapsettus panamensis Steindachner.

Panama.

Parapsettus panamensis Steindachner, Ichth. Beitr., III, 1875, 51, Panama.

Family 222. CHÆTODONTIDÆ. Butterflyfishes; Coralfishes**Genus 964. PROGNATHODES Gill.**

Prognathodes Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 238 (*Chelmo pelta* Günther = *Chelmon aculeatus* Poey).

2787. Prognathodes aculeatus (Poey).

West Indies.

Chelmon aculeatus Poey, Memorias, II, 1861, 202, Cuba.

Chelmo pelta Günther, Cat., II, 1860, 38, locality unknown.

Genus 965. FORCIPIGER Jordan and McGregor.

Forcipiger Jordan and McGregor, Rept. U. S. Fish Com., XXIV, 1898, 279 (*Chætodon longirostris* Broussonet).

2788. Forcipiger longirostris (Broussonet).

South Seas east to Revillagigedo Islands.

Chætodon longirostris Broussonet, Desc. Ichth., I, 1782, 23, pl. 7, Society and Sandwich Islands.

Forcipiger flavissimus Jordan and McGregor, Rept. U. S. Fish Com., XXIV, 1898, 279, Clarion Island, Revillagigedo Archipelago.

Genus 966. CHÆTODON⁶⁶ Linnæus. Butterflyfishes.

Chætodon Linnæus, Syst. Nat., Ed. X, 1758, 272 (*C. capistratus* Linnæus).

Rabdophorus Swainson, Class. Fishes, II, 1839, 21 (*Chætodon ephippium* Cuvier and Valenciennes).

Citrædus Kaup, Wiegmann's Archiv, XXVI, 1860, 136 (*Chætodon ornatissimus* Solander).

Linophora Kaup, loc. cit., 137 (*Chætodon auriga* Forskål).

Sarothrodus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 99 (*Chætodon capistratus* Gill).

Tholichthys Günther, Ann. Mag. Nat. Hist., I, 4th ser., 1868, 457 (*T. osseus* Günther; a larval form).

Chætodontops Bleeker, Arch. Neerl. Soc. Nat., XI, 1876, 304 (*Chætodon collaris* Bloch).

Tetragonopterus Klein, in Bleeker, loc. cit., 305 (*Chætodon striatus* L.); not *Tetragonopterus* of Cuvier.

Lepidochætodon Bleeker, loc. cit., 305 (*Chætodon unimaculatus* Bloch).

Gonochætodon Bleeker, loc. cit., 306 (*Chætodon triangulum* Kuhl and Van Hasselt).

Orychætodon Bleeker, loc. cit., 306 (*Chætodon lineolatus* Quoy and Gaimard).

Hemichætodon Bleeker, Versl. Ak. Amsterdam, XII, 1876, 38 (*Chætodon capistratus* Linnæus).

Anisochætodon Klunzinger, Fische Rothen Meeres, I, 1884, 3 (*Chætodon auriga* Cuvier and Valenciennes).

Subgenus CHÆTODON Linnæus.**2789. Chætodon capistratus Linnæus. Parché.**

West Indies, Habana, north to Woods Hole.

Chætodon capistratus Linnæus, Syst. Nat., Ed. X, 1758, 275, India.

Chætodon bricei Smith, Bull. U. S. Fish Com., XVII, 1897, 102, with text fig., Woods Hole, Mass.; young.

2790. Chætodon striatus Linnæus. Portuguese butterfly.

West Indies.

Chætodon striatus Linnæus, Syst. Nat., Ed. X, 1758, 275, India.

⁶⁶ These nominal genera, here included under *Chætodon*, are mostly imperfectly defined. The following may be added: *Chætodon*, lines of scales running upward and backward from the lateral line, no produced rays; *Linophora*, similar but one dorsal ray much produced; *Orychætodon*, scales of sides enlarged, snout sharp; *Chætodontops*, similar, but snout blunt, etc.; *Lepidochætodon*, scales of sides much enlarged, in horizontal rows, etc.; *Rabdophorus*, scales horizontal, much reduced above lateral line (see Jordan and Jordan, Mem. Carnegie Mus. X, 58, 1922).

Subgenus CHÆTODONTOPS Bleeker.

2791. *Chætodon bimaculatus* Bloch.⁶⁷ *Parché; Isabelita de la alto.*
West Indies, north in Gulf Stream to New Jersey and Rhode Island.
Chætodon ocellatus Bloch, Naturgesch. Ausl. Fische, III, pl. 211, 1787,
105, "also from the East Indies."
Chætodon bimaculatus Bloch, loc. cit., 1790, pl. 219, fig. 1.
Sarothrodus maculo-cinctus Gill, Proc. Acad. Nat. Sci. Phila., XIII,
1861, 99, Newport, R. I.
Sarothrodus amplexicollis Poey, Enumeratio, 1875, 63, Cuba.
2792. *Chætodon nigrirostris* (Gill).
Cape San Lucas, Lower California; Panama Bay.
Sarothrodus nigrirostris Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
243, Cape San Lucas, Lower California.
2793. *Chætodon humeralis* Günther. *Muñeca; Dollfish.*
Pacific coast of America, from Guaymas to Panama.
Chætodon humeralis Günther, Cat., II, 1860, 19, "Sandwich Islands,"
by error for Central America.
2794. *Chætodon sedentarius* Poey.
West Indian fauna.
Chætodon sedentarius Poey, Memorias, II, 1860, 203, Cuba.
2795. *Chætodon gracilis* Günther.
West Indies.
Chætodon gracilis Günther, Cat., II, 1860, 20, Caribbean Sea, West
Indies.
2796. *Chætodon aya* Jordan.
Gulf of Mexico.
Chætodon aya Jordan, Proc. U. S. Nat. Mus., IX, 1886, 225, Snapper
Banks, south of Pensacola, Fla.
2797. *Chætodon atæniatus* (Poey).
Habana Cuba.
Sarothrodus atæniatus Poey, Synopsis, 1868, 353, Cuba.
? *Chætodon unicolor* Sauvage, Bull. Soc. Philom., IV, 1880, 222, Mar-
tinique.

Genus 967. POMACANTHUS Lacépède. *Chirivita*.

Pomacanthus Lacépède, Hist. Nat. Poiss., IV, 1803, 517 (*Chætodon*
arcuatus Linnæus, as restricted by Cuvier).

2798. *Pomacanthus arcuatus* (Linnæus). *Black angel; Chirivita; Portugais.*
West Indies, north to New Jersey, south to Bahia.
Chætodon arcuatus Linnæus, Syst. Nat., Ed. X, 1758, 273, "India."
Chætodon aureus Bloch, Naturgesch. Ausl. Fische, III, 1787, 49, Mar-
tinique; on drawing by Plumier.
Chætodon lutescens Bonnaterre, Encycl. Meth., 1788, 82, Jamaica; after
Browne.
Chætodon littoricola Poey, Synopsis, 1868, 351, Cuba.
Pomacanthus balteatus Cuvier and Valenciennes, Hist. Nat. Poiss., VII,
1831, 156 (208), Porto Rico.
Pomacanthus cingulatus Cuvier and Valenciennes, loc. cit., 156 (209),
pl. 185, West Indies (probably Porto Rico).
Pomacanthus quinquecinctus Cuvier and Valenciennes, loc. cit., 157
(210), West Indies (probably Porto Rico).
2799. *Pomacanthus paru* (Bloch). *Paru; Indianfish; Flatfish; Chirivita.*
West Indies, south to Bahia; Tortugas.
Chætodon paru Bloch, Naturgesch. Ausl. Fische, III, 1787, 57, Brazil;
on a drawing.

Genus 968. POMACANTHODES Gill.

Pomacanthodes Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 244 (*P.*
zonipectus Gill).

⁶⁷ Poey seems to have been the first to recognize the identity of *ocellatus* (which has page priority) with *bimaculatus*. He chose to use the name *bimaculatus*, which should therefore stand.

2800. *Pomacanthodes zonipectus* Gill. *Mojarra de las piedras*.
West coast of tropical America, from Mazatlan to Panama.
Pomacanthodes zonipectus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862,
244, San Salvador.
Pomacanthus crescentalis Jordan and Gilbert, Proc. U. S. Nat. Mus.,
IV, 1881, 358, Mazatlan.

Genus 969. **CENTROPYGE** Kaup.

Centropyge Kaup, Wiegmann's Archiv, XXVI, 1860, 140 (*Holacanthus tibicen* Cuvier and Valenciennes).

2801. **Centropyge passer** (Valenciennes).
West coast of tropical America; Cape San Lucas to Galapagos Islands.
Holacanthus passer Valenciennes, Voy. *Vénus*, 1846, 327, pl. 6, Galapagos
Archipelago.
Holacanthus strigatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 243,
Cape San Lucas.
2802. **Centropyge clarionensis** (Gilbert).
Clarion, Socorro, and San Benedicto Islands of the Revillagigedo group.
Holacanthus clarionensis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
72, Revillagigedo Islands; Clarion, Socorro, and San Benedicto.

2803. **Centropyge lunata** (Blosser).

St. Croix.

Holacanthus lunatus Blosser, Ann. Carnegie Mus., VI, 1909, 299, St.
Croix.

This small species with low fins and rounded caudal if fairly mature
can not be placed in *Holacanthus*. It seems to belong to the genus
Centropyge, a genus thus far known only from the Pacific.

Genus 970. **HOLACANTHUS** Lacépède. *Catalineta*.

Holacanthus Lacépède, Hist. Nat. Poiss., IV, 1803, 525 (*Chaetodon*
tricolor Bloch).

2804. **Holacanthus tricolor** (Bloch). *Rock beauty; Catalineta; Vaqueta de los colores*.

West Indies and Bermudas; south to Bahia.

Chaetodon tricolor Bloch, Naturgesch. Ausl. Fische, IX, 1795, 103, Cuba.
Catalineta Parra, Deser. Dif. Piez., Hist. Nat. Cuba, 1787, 12, Pl. VII,
fig. 2, Cuba.

Genus 971. **ANGELICHTHYS** Jordan and Evermann.

Angelichthys Jordan and Evermann, Check List, 1895, 420 (*Chaetodon*
ciliaris Linnæus).

2805. **Angelichthys ciliaris** (Linnæus). *Angelfish; Isabelita; Yellow angel; Golden angel; Blue angel*.

West Indies north to Key West.

Chaetodon ciliaris Linnæus, Syst. Nat., Ed. X, 1758, 276, Indies, in part.
Isabelita Parra, Dif. Piezas, Hist. Nat. Cuba, 1787, 11, pl. 7, fig. 1, Cuba.
Chaetodon squamulosus Shaw, Naturalist's Miscellany, VIII, 1796, 275;
after the angelfish of Catesby.

Chaetodon parrae Bloch and Schneider, Syst. Ichth., 1801, 235, Cuba;
after *Isabelita* of Parra.

Holacanthus cornutus Desmarest, Décade Ichthyologique, 1823, 44,
pl. 3, fig. 3, Cuba.

Holacanthus formosus Castelnau, Anim. Amer. Sud, Pois., 1855, 19,
Pl. XI, fig. 2, Bahia.

2806. **Angelichthys isabelita** Jordan and Rutter. *Angelfish*.

West Indies; north to Key West, Fla.

Angelichthys isabelita Jordan and Rutter, in Jordan and Evermann,
Fishes North and Mid. Amer., 1898, 1685, Key West.

2807. **Angelichthys townsendi** Nichols and Mowbray.

Florida.

Angelichthys townsendi Nichols and Mowbray, Bull. Amer. Mus. Nat.
Hist., XXXIII, 1914, 581, Key West, Fla.

Family 223. ZANCLIDÆ. Moorish idols

Genus 972. ZANCLUS Cuvier and Valenciennes

Zanclus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 70 (102) (*Chætodon cornutus* Linnæus).

Gonopterus Gronow, Cat. Fish., ed. Gray, 1854, 77 (*G. mærens* Gronow = *Chætodon cornutus* Linnæus).

Gnathocentrum Guichenot, Ann. Maine et Loire, IX, 1866, 4 (*Zanclus centrognathus* Cuvier and Valenciennes); young.

2808. *Zanclus cornutus* (Linnæus). Moorish idol; Besan; Piquier; Porte enseigne.

Warm seas of the Pacific; Revillagigedo, Cocos, and Galapagos islands; Hawaii; Samoa; East Indies and islands of Polynesia; common and widely distributed throughout the Pacific.

Chætodon cornutus Linnæus, Syst. Nat., Ed. X, 1758, 273, Indies; after Artedi.

Zanclus centrognathus Cuvier and Valenciennes, Hist. Nat. Poiss., VII, 1831, 397 (528), near Equator, 75° E.

Gonopterus mærens Gronow, Cat. Fishes, ed. Gray, 1854, 77, India.

Family 224. ACANTHURIDÆ. Surgeonfishes; Tangs

Genus 973. ACANTHURUS Forskål. Surgeonfishes.

Acanthurus Forskål, Descr. Anim., 1775, 59 (*Chætodon unicornis*), etc.

Harpurus (Forster) Gmelin, Enchiridion, 1778, 84 (*H. fasciatus* Forster).

Aspirus Lacépède, Hist. Nat. Poiss., IV, 1803, 556 (*Chætodon sohar* Forskål),

Acronurus Gronow, Cat. Fishes, 1854, 190 (*Teuthis hepatus* Linnæus).

Rhombotides (Klein) Bleeker, Neder. Tijdschr. Dierk., I (*Chætodon triostegus* Linnæus).

Subgenus HARPURUS Forster.

2809. *Acanthurus triostegus* (Linnæus).

South Pacific, from New Zealand and Australia to the Revillagigedos.

Chætodon triostegus Linnæus, Syst. Nat., Ed. X, 1758, 274, India.

Harpurus fasciatus Forster, Enchiridion, 1778, 84, South Seas.

Acanthurus zebra Lacépède, Hist. Nat. Poiss., III, 1802, 548, fig. 3, no locality.

Chætodon couaga Lacépède, loc. cit. IV, 1802, 727, no locality.

Teuthis australis Gray, in King, Surv. Australia, II, 1826, 435.

Acanthurus hirudo Bennett, Ceylon Fishes, 1851, 11, pl. 11, Ceylon.

Acanthurus subarmatus Bennett, Whaling Voyage, II, 1840, 278, Raiatea, Society Islands.

Subgenus TEUTHIS.

2810. *Acanthurus cæruleus* Bloch and Schneider. Barbero; Blue surgeon; Blue tang.

West Indies, Key West, and Bermuda to Bahia, north to Woods Hole, Mass.

Acanthurus cæruleus Bloch and Schneider, Syst. Ichth., 1801, 214, Carolinas; Habana; Jamaica; after Catesby, Parra, and Browne.

Acanthurus broussonetii Desmarest, Prem. Dec. Ichth., 1823, 26, Cuba.

Acanthurus brevis Poey, Memorias, II, 1861, 207, Antilles and Habana.

Acronurus cæruleatus Poey, Enumeratio, 1875, 69, Cuba; young.

2811. *Acanthurus hepatus* (Linnæus). Common surgeon; Doctor fish; Lancel fish; Tang; Tangbarbero; Saigneur; Barbero.

West Indian fauna; Florida to Bahia; Key West and Cuba; Charleston; north to Woods Hole, Mass.

Teuthis hepatus Linnæus, Syst. Nat., Ed. XII, 1766, 507, Carolinas.

Chætodon chirurgus Bloch, Naturgesch. Ausl. Fische, III, 1787, 99, Martinique; on drawing by Plumier.

Acanthurus phlebotomus Cuvier and Valenciennes, Hist. Nat. Poiss., X, 1835, 129 (176), pl. 287 Martinique, Brazil, Habana, New York.

Acronurus fuscus Gronow, Fish., ed. Gray, 119, 1854, West Indies; young.

Acronurus carneus Poey, Memorias, II, 1860, 207, Cuba.

2812. *Acanthurus bahianus* Castelnau. *Barbero; Ocean tang.*
West Indies to Brazil.
Acanthurus bahianus Castelnau, Anim. Amer. Sud, Poiss., 1855, 24,
Pl. XI, fig. 1, Bahia.
Acanthurus tractus Poey, Memorias, II, 1861, 208, Cuba.
Aconurus nigriculus Poey, Enumeratio, 1875, 69, Cuba.
2813. *Acanthurus crestonis* (Jordan and Starks). *Barbero negro.*
West coast of Mexico and Central America, Mazatlan to Panama.
Teuthis crestonis Jordan and Starks, Proc. Calif. Acad. Sci., ser. 2,
1895, V, 485, pl. 47, Mazatlan.
2814. *Acanthurus aliala* Lesson. *Philosophe.*
East Indies to the west coast of Mexico; abundant at Socorro and
Clarion Islands.
Acanthurus aliala Lesson, Voy. Coquille, Zool., II, 1830, 150, Oualan.
Acanthurus glaucopareius Cuvier and Valenciennes, Hist. Nat. Poiss.,
X, 1835, 139 (190), Oualan; Mollucca.
- Genus 974. *XESURUS* Jordan and Evermann.
Xesurus Jordan and Evermann, Check List, 1895, 421 (*Prionurus*
punctatus Gill).
2815. *Xesurus punctatus* (Gill). *Cochinito.*
Cape San Lucas; Mazatlan; Creston Island.
Prionurus punctatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 242,
Cape San Lucas.
2816. *Xesurus clarionis* Gilbert and Starks.
Galapagos Islands.
Xesurus clarionis Gilbert and Starks, Proc. U. S. Nat. Mus., XIX,
1896, 437, 445, Clarion Island, Galapagos Archipelago.
- Genus 975. *CTENOCHÆTUS* Gill.
Ctenodon Bonaparte, in Klunzinger, Fische Rothen Meeres, 1884,
I Theil, 54 (*Acanthurus strigosus* Bennett); name preoccupied.
Ctenochætus Gill, Proc. U. S. Nat. Mus., VII, 1884, 277 (*Acanthurus*
strigosus Bennett).
2817. *Ctenochætus striatus* (Quoy and Gaimard). *Kale.*
South seas, recorded from Cocos Island.
Acanthurus striatus Quoy and Gaimard, Voyage l'Uranie, Zool., 1824,
373, pl. 63, fig. 3, Guam.
Acanthurus strigosus Bennett, Zool. Jour., IV, XIII, Art. III, 1828, 41,
Honolulu.
Acanthurus ctenodon Cuvier and Valenciennes, Hist. Nat. Poiss., X,
1835, 178 (241), pl. 289, the Carolines and New Guinea.

Order RR. CATAPHRACTI

Family 225. SCORPÆNIDÆ. Rockfishes and scorpionfishes

- Genus 976. *SEBASTES* Cuvier. *Rosefishes.*
Sebastes Cuvier, Règne Anim., ed. 2, II, 1829, 166 (*Perca norvegica*
Ascanius=*Perca marina* Linnæus).
Eusebastes Sauvage, Nouv. Archives Mus. Paris, 1878, (2), 1, 1421
(*Perca norvegica* Ascanius).
2818. *Sebastes marinus* (Linnæus). *Rosefish; Redfish; Snapper; Hemdurgan;*
Red seafish; Norway haddock.
North Atlantic, both coasts, south to Faroe Islands; Norway; Maine;
in deep water off coast of middle New Jersey.
Perca marina Linnæus, Syst. Nat., Ed. X, 1758, 290, Norway.
Perca norvegica Ascanius, Icones Rev. Nat., II, 1772, 7, Norway.
Holocentrus sanguineus Faber, Natur. der Fische Islands, 1829, 126,
Iceland.
Sebastes fasciatus Storer, Proc. Bost. Soc. Nat. Hist., V, 1854, 31,
Provincetown, Mass.
Sebastes regulus Ekstrom, Skand. Fish., Ed. I, 197, plate only.

2819. *Sebastes viviparus* Krøyer.

North Atlantic, in shallow bays, more southerly not certainly recorded from America.

Sebastes viviparus Krøyer, Naturh. Tidskr., I, 1845, 275, Norway, in shallow water.

Genus 977. SEBASTOLOBUS Gill.

Sebastolobus Gill, Rept. Smithson. Inst., 1880, 375 (*Sebastes macrochir* Günther).

2820. *Sebastolobus altivelis* Gilbert.

Aleutian Islands, Alaska, and in deep water off the coast of California.

Sebastolobus altivelis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 410, pl. 23, south of Alaska Peninsula, at Albatross station 3338, in 625 fathoms.

2821. *Sebastolobus alascanus* Bean.

Bering Sea; Pacific coast of Alaska, Washington, Oregon, and California, in deep water; recently taken in San Pedro.

Sebastolobus alascanus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 44, off Trinity Islands, Alaska, at Albatross station 2853, 56° N., 154° W., in 159 fathoms.

Genus 978. EMMELAS Jordan and Evermann.

Emmelas Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1773 (*Sebastes glaucus* Hilgendorf).

2822. *Emmelas glaucus* (Hilgendorf).

Hokkaido, north to Bering Island.

Sebastes glaucus Hilgendorf, Sitzber. Ges. Naturf. Freunde, Berlin, 1880, 172, Hokkaido, north Japan; no description given.

Genus 979. SEBASTODES⁶⁸ Gill. Rockfishes.

Sebastes Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Sebastes paucispinis* Ayres).

2823. *Sebastes paucispinis* (Ayres). Bocaccio; Mérou; Jack.

San Diego to Barclay Sound, British Columbia; common south. A valued food fish.

Sebastes paucispinis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 6, San Francisco.

2824. *Sebastes jordani* Gilbert.

Coast of California in deep water.

Sebastes jordani Gilbert, Rept. U. S. Fish Com., XIX, 1893, 466, coast of California, at Albatross station 2935, 3103, and 3114, in 64 to 124 fathoms.

2825. *Sebastes goodei* Eigenmann and Eigenmann.

San Diego to San Francisco; not common.

Sebastes goodei Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., III, 1890, 12, San Diego, Calif.

Genus 980. SEBASTOSOMUS Gill.

Sebastosomus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 59 (*Sebastes melanops* Girard).

Primospina Eigenmann and Beeson, Am. Nat., XXVII, 669 (*Sebastichthys mystinus* Jordan and Gilbert).

Subgenus PRIMOSPINA Eigenmann and Beeson.**2826. *Sebastosomus flavidus* (Ayres). Yellowtail rockfish.**

San Diego to San Francisco; common northward.

Sebastes flavidus Ayres, Proc. Calif. Acad. Nat. Sci., ser. I, II, 1862, 209, fig. 64, San Francisco.

⁶⁸ The 13-spine allies of *Sebastes* constitute a most striking feature of the fauna of the north Pacific, the species being very numerous on the rocky coast of California, Alaska, and Japan; a few also in Chile. The species are in general well defined, showing little individual variation and no sex changes. It is extremely difficult, however, to divide them into genera, the various traits being intertangled to a remarkable degree. Yet such species as *paucispinis*, *rosaceus*, and *nigrocinctus* could hardly stand in one genus in a natural system. It may be noted that the group called *Sebastes* is the simplest in organization and also the oldest, four well-marked species related to *Sebastes paucispinis* occurring in the upper Miocene of California.

- 2827. *Sebastosomus serranoides*** (Eigenmann and Eigenmann).
Cortez Banks, off San Diego.
Sebastes serranoides Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., III, 1890, 36, Cortez Banks.
- 2828. *Sebastosomus melanops*** (Girard).
Pacific coast of America, from Monterey to Sitka.
Sebastes melanops Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 135, Astoria, Oreg.
Sebastosomus simulans Gill, loc. cit., XVI, 1864, 147, Cape Flattery.
- 2829. *Sebastosomus mystinus*** (Jordan and Gilbert). *Pêche prête; Priestfish; Black rockfish*.
Pacific coast of America, from Aleutian Islands to San Diego.
Sebastichthys mystinus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 455, San Francisco.
- 2830. *Sebastosomus ciliatus*** (Tilesius).
Coast of Alaska.
Epinephelus ciliatus Tilesius, Mem. Acad. Sci. St. Petersb., IV, 1810, 474, Aleutian Islands.
Perca variabilis Pallas, Zoogr. Rosso-Asiat., III, 1811 (1831), 241, Aleutian Islands; including *S. aleuticus*.
- Genus 981. ROSICOLA** Jordan and Evermann.
Rosicola Jordan and Evermann, Check List, 1895, 429 (*Sebastosomus pinniger* Gill).
- 2831. *Rosicola babcocki*** (Thompson).
Coast of Alaska and British Columbia, common.
Sebastes babcocki W. F. Thompson, Fisheries British Columbia, 1914, Middleton Island, Alaska.
- 2832. *Rosicola pinniger*** (Gill). *Flioma; Orange rockfish*.
Pacific coast of America, from San Diego to Puget Sound.
Sebastosomus pinniger Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 147, San Francisco.
- 2833. *Rosicola miniatus*** (Jordan and Gilbert). *Rasciera; Rasher*.
Pacific coast of America, from San Francisco to San Diego.
Sebastichthys miniatus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 70, Monterey, Calif.
- 2834. *Rosicola alexandri*** (Evermann and Goldsborough).
Monterey Bay.
Sebastes alexandri Evermann and Goldsborough, Proc. U. S. Nat. Mus., XXXI, 1907, 651, Monterey Bay in 65 fathoms.
- Genus 982. ZALOPYR** Jordan and Evermann.
Zalopyr Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1795 (*Sebastes aleutianus* Jordan and Evermann).
- 2835. *Zalopyr aleutianus*** (Jordan and Evermann).
Alaska; Aleutian Islands.
Sebastes aleutianus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1795, Shelikof Straits, Alaska.
- 2836. *Zalopyr atrorubens*** (Gilbert).
Monterey, Calif.
Sebastes atrorubens Gilbert, in Jordan and Evermann, Check List, 1895, 429, and Fishes North and Mid. Amer., 1898, 1797, San Francisco.
- 2837. *Zalopyr atrovirens*** (Jordan and Gilbert). *Garrupa*.
Coast of California, from San Diego, to San Francisco.
Sebastichthys atrovirens Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 289, Monterey, Calif.
- Genus 983. ACUTOMENTUM**⁶⁹ Eigenmann and Beeson.
Acutomentum Eigenmann and Beeson, Amer. Nat., XXVII, 1893, 669 (*Sebastes ovalis* Ayres).

⁶⁹ As here arranged, this is far from a natural assemblage.

2838. *Acutomentum ovale* (Ayres). *Viwa*; *Widowfish*.
Pacific coast of United States from San Diego to San Francisco.
Sebastes ovalis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1862, 209-212,
fig. 65, San Francisco.
2839. *Acutomentum prorigerum* (Jordan and Gilbert).
San Diego to San Francisco.
Sebastichthys proriger Jordan and Gilbert, Proc. U. S. Nat. Mus., III,
1880, 327, Monterey, Calif.
2840. *Acutomentum brevispine* (Bean).
Coast of Alaska.
Sebastichthys proriger var. *brevispinis* Bean, Proc. U. S. Nat. Mus.,
VI, 1883, 359, Hassler Harbor, Alaska.
2841. *Acutomentum clavilatum* (Starks).
Puget Sound.
Sebastes clavilatus Starks, Ann. Carnegie Mus., VII, 1911, 181, San
Juan Islands, Puget Sound.
2842. *Acutomentum entomelas* (Jordan and Gilbert).
Pacific coast of America, from Port Harford to Monterey Bay.
Sebastichthys entomelas Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 142, Monterey.
2843. *Acutomentum wilsoni* (Gilbert).
Monterey Bay.
Sebastes wilsoni Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 333,
pl. 16, fig. 8, Monterey Bay.
2844. *Acutomentum rufum* (Eigenmann and Eigenmann).
Pacific coast of America, near San Diego; Cortez Banks.
Sebastes rufus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d ser. III, 1890, 13, Point Loma; Cortez Banks.
2845. *Acutomentum macdonaldi* Eigenmann and Beeson.
San Diego, Calif.
Acutomentum macdonaldi Eigenmann and Beeson, Am. Nat., XXVII,
1893, 669, San Diego, Calif.
2846. *Acutomentum eigenmanni* (Cramer).
Coast of California.
Sebastes eigenmanni Cramer, Proc. Calif. Acad. Sci., VI, 1896, 239,
Pl. XLII, Monterey, Calif.
2847. *Acutomentum hopkinsi* (Cramer).
Monterey Bay, Calif.
Sebastes hopkinsi Cramer, Proc. Calif. Acad. Sci., V, 1895, 594, with
plate, Monterey Bay, Calif.
2848. *Acutomentum alutum* (Gilbert).
Pacific coast of America, from Bering Sea to Santa Barbara.
Sebastichthys alutus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 76,
Santa Barbara Islands, Calif.
- Genus 984. *EOSEBASTES* Jordan and Evermann.
Eosebastes Jordan and Evermann, Check List, 1895 430 (*Sebastichthys*
aurora Gilbert).
2849. *Eosebastes aurora* (Gilbert).
Santa Barbara Islands, in deep water.
Sebastichthys aurora Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 80,
Santa Barbara Islands, in 266 fathoms.
2850. *Eosebastes melanostomus* (Eigenmann and Eigenmann).
Coast of California to Alaska.
Sebastes melanostomus Eigenmann and Eigenmann, Proc. Calif.
Acad. Sci., 2d ser., III, 1890, 17, Point Loma, near San Diego, Calif.
2851. *Eosebastes introniger* (Gilbert).
Santa Barbara to Bering Sea.
Sebastichthys introniger Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 81,
Santa Barbara Islands.

2852. *Eosebastes saxicola* (Gilbert).
Southern California to southeast Alaska in moderate depth.
Sebastichthys saxicola Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 78,
Santa Barbara Islands at Albatross stations 2893, 2907, and others,
in 44 to 155 fathoms.
2853. *Eosebastes deani* (Starks).
Puget Sound.
Sebastodes deani Starks, Ann. Carnegie Mus., VII, 1911, 178, Puget
Sound.
2854. *Eosebastes crameri* (Jordan).
Coast of Oregon.
Sebastodes crameri Jordan, Proc. U. S. Nat. Mus., XIX, 1896, 451,
coast of Oregon, at Albatross station 3091.
2855. *Eosebastes swifti* (Evermann and Goldsborough).
Southern Alaska.
Sebastodes swifti Evermann and Goldsborough, Bull. U. S. Bur. Fish.,
XXVI, 1906, 285, Yes Bay and Kasaan Bay, Alaska.
2856. *Eosebastes semicinctus* (Gilbert).
Coast of California.
Sebastodes semicinctus Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 449,
Santa Barbara Channel, Calif.
2857. *Eosebastes diploproa* (Gilbert).
Pacific coast from the Coronado Islands northward to Nanaimo,
British Columbia.
Sebastichthys diploproa Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
79, Coronado Islands at Albatross station 2935, in 124 fathoms.
2858. *Eosebastes emphaeus* (Starks).
Puget Sound, in deep water.
Sebastodes emphaeus Starks, Ann. Carnegie Mus., VII, 1911, 183, about
San Juan Islands, Puget Sound.
- Genus 985. **SEBASTOMUS** Gill.
Sebastomus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 147 (*Sebastes*
rosaceus Girard).
2859. *Sebastomus constellatus* (Jordan and Gilbert). *Spotted rockfish*.
Coast of California, from San Diego to San Francisco.
Sebastichthys constellatus Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 295, Santa Barbara Channel; San Francisco.
2860. *Sebastomus rosaceus* (Girard). *Corsair*.
Pacific coast from San Diego to Puget Sound.
Sebastes rosaceus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1854, 146,
San Diego, San Francisco.
Sebastes helvomaculatus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859,
26, San Francisco.
2861. *Sebastomus rhodochloris* (Jordan and Gilbert). *Flyfish*.
Off Monterey and San Francisco.
Sebastichthys rhodochloris Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 144, Monterey, Calif.
2862. *Sebastomus chlorostictus* (Jordan and Gilbert). *Pesca vermiglia*.
San Diego; Monterey; San Francisco.
Sebastichthys chlorostictus Jordan and Gilbert, Proc. U. S. Nat. Mus.,
III, 1880, 294, Monterey, Calif.
2863. *Sebastomus umbrosus* (Jordan and Gilbert).
Coast of California, Point Conception to Coronado Islands.
Sebastichthys umbrosus Jordan and Gilbert, Proc. U. S. Nat. Mus., V,
1882, 410, Santa Barbara.
Sebastodes arcus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d ser., III, 1890, 20, Coronado Islands.
2864. *Sebastomus ayresii* (Gilbert and Cramer).
Coast of southern California at Cortez Banks, near San Diego.
Sebastodes ayresii Gilbert and Cramer, Proc. U. S. Nat. Mus., XIX,
1896, 450, Cortez Banks, near San Diego, Calif.

2865. *Sebastomus eos* (Eigenmann and Eigenmann).
Coast of California at Point Loma, near San Diego.
Sebastes eos Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., III, 1890, 18, Point Loma, near San Diego, Calif.
2866. *Sebastomus gillii* (Eigenmann and Eigenmann).
Coast of California at Point Loma, near San Diego.
Sebastes gillii Eigenmann and Eigenmann, Amer. Nat., XXV, February, 1891, 154, Point Loma, near San Diego, Calif.
2867. *Sebastomus rupestris* (Gilbert).
Santa Barbara Islands northward to southeast Alaska.
Sebastichthys rupestris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 76, Santa Barbara Islands, at Albatross station 2946, in 150 fathoms.
- Genus 986. **SEBASTOPYR**⁷⁰ Jordan and Evermann.
Sebastopyr Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 506 (*Sebastes ruberrimus* Cramer).
2868. *Sebastopyr ruberrimus* (Cramer). *Red rockfish; Tambor.*
Pacific coast from San Diego to Puget Sound and southeastern Alaska.
Sebastes ruber of early writers, not of Ayres.
Sebastes ruberrimus Cramer, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 597, pls. 62, 63, and 69, Monterey, Calif.
- Genus 987. **HISPANISCUS** Jordan and Evermann.
Hispaniscus Jordan and Evermann, Check List, 1895, 431 (*Sebastichthys rubrivinctus* Jordan and Gilbert).
2869. *Hispaniscus rubrivinctus* (Jordan and Gilbert). *Spanish flag.*
California coast from San Diego to Monterey; not rare south. A most brilliantly colored fish.
Sebastichthys rubrivinctus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 291, Santa Barbara Channel.
2870. *Hispaniscus levis* (Eigenmann and Eigenmann).
Coast of California, from San Diego to Monterey.
Sebastichthys levis Eigenmann and Eigenmann, West American Scientist, Nov. 9, 1889, 128, San Diego, Calif.
2871. *Hispaniscus zacentrus* (Gilbert).
Coast of California.
Sebastichthys zacentrus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 77, Santa Barbara Islands, at Albatross station 2893 and 2946, in 145 and 150 fathoms.
2872. *Hispaniscus elongatus* (Ayres). *Reina.*
California coast, from San Diego to San Francisco.
Sebastes elongatus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1858-1862 (Oct. 17, 1859), 26, San Francisco.
2873. *Hispaniscus sinensis* (Gilbert).
Gulf of California.
Sebastichthys sinensis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 81, Gulf of California, at Albatross station 3015 in 145 fathoms.
- Genus 988. **AUCTOSPINA** Eigenmann and Beeson.
Auctospina Eigenmann and Beeson, Amer. Nat., XXVII, 1893, 670 (*Sebastes auriculatus* Girard).
2874. *Auctospina auriculata* (Girard). *Brown rockfish.*
Pacific coast of America, from Cape Mendocino to Cedros Island; common.
Sebastes auriculatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 131, 146, San Francisco.
Sebastes ruber Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854 (Sept. 11), 7, San Francisco.
Sebastes ruber parvus Ayres, loc. cit., I, 1854 (Sept. 11), 7, San Francisco.

⁷⁰ This group is allied to *Sebastomus*, but of much coarser build, the cranial spines in the adult rough with blunt spinules.

2875. *Auctospina dallii* (Eigenmann and Beeson).
Pacific coast of America, from San Francisco to Puget Sound; perhaps a variation of *A. auriculata*.
Pteropodus dallii Eigenmann and Beeson, Amer. Nat., XXVIII, January, 1894, 66, San Francisco.
- Genus 989. **PTEROPODUS** Eigenmann and Beeson.
Pteropodus Eigenmann and Beeson, Amer. Nat., XXVII, 1893, 670 (*Sebastichthys maliger* Jordan and Gilbert); not *Pteropus*, a genus of birds.
2876. *Pteropodus rastrelliger* (Jordan and Gilbert). *Grass rockfish*.
California coast, from San Diego to San Francisco.
Sebastichthys rastrelliger Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 296, Monterey, Calif.
2877. *Pteropodus caurinus* (Richardson).
Pacific coast of America from Puget Sound to Sitka.
Sebastes caurinus Richardson, Voy. Sulphur, Ichthyology, 1845, 77, pl. 41, fig. 1, Sitka.
2878. *Pteropodus vexillaris* (Jordan and Gilbert).
California coast, from San Diego to Cape Mendocino, replacing *caurinus* southward.
Sebastichthys vexillaris Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 292, Santa Barbara Channel; San Francisco.
2879. *Pteropodus maliger* (Jordan and Gilbert). *Yellow-backed rock cod*; *Brown rock cod*.
Pacific coast of America, from Monterey to Sitka; not rare.
Sebastichthys maliger Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 322, San Francisco.
2880. *Pteropodus gilberti* (Cramer).
Coast of California.
Sebastes gilberti Cramer, Proc. Calif. Acad. Sci., VI, 1896, 241, Pl. XLIII, San Francisco.
2881. *Pteropodus carnatus* (Jordan and Gilbert). *Flesh-colored rock cod*.
California coast, from San Diego to Point Reyes, replacing *P. chrysomelas* in shallow water.
Sebastichthys carnatus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 73, Monterey, Calif.
2882. *Pteropodus chrysomelas* (Jordan and Gilbert). *Black and yellow rock cod*.
Pacific coast of America, from Puget Sound to San Diego; common in moderate depths.
Sebastichthys chrysomelas Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 455, 465, Monterey, Calif.
2883. *Pteropodus nebulosus* (Ayres). *Yellow-spotted rock cod*.
Pacific coast; southeastern Alaska; Puget Sound region, Vancouver to Point Conception; common.
Sebastes nebulosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854 (Sept. 11), 5, San Francisco.
Sebastes fasciatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 146, Presidio, California; not of Storer.
Sebastichthys fasciolaris Lockington, Proc. U. S. Nat. Mus., III, 1880, 297, San Francisco.
- Genus 990. **SEBASTOCARUS**⁷¹ Jordan and Evermann.
Sebastocarus Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 507 (*Sebastichthys serriceps* Jordan and Gilbert).
2884. *Sebastocarus serriceps* (Jordan and Gilbert). *Treefish*.
Coast of California, from Point Reyes to Cedros Island; common south.
Sebastichthys serriceps Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 38, Santa Barbara and Santa Catalina Islands, Calif.

⁷¹ This genus is nearly allied to *Sebastichthys* differing in the more compressed body and especially in the strict and high ridges on the head, all of them free from serrations or accessory tubercles.

Genus 991. SEBASTICHTHYS Gill.

Sebastichthys Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 278, 329
(*Sebastes nigrocinctus* Ayres).

2885. Sebastichthys nigrocinctus (Ayres). Black-banded rock cod.

Monterey Bay to Naha Bay, Alaska.

Sebastes nigrocinctus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 25,
fig. 6, San Francisco.

Genus 992. METZELAARIA Jordan.

Metzelaaria Jordan, Class. Fishes, 1923, 209 (*Scorpæna tridecimspinosa*
Metzelaar).

2886. Metzelaaria tridecimspinosa (Metzelaar).

Caribbean Sea.

Scorpæna tridecimspinosa Metzelaar, Tropisch Atlantische Vissehen,
1919, 146, fig. 44, Bonaire, Aruba.

Genus 993. SCORPÆNODES Bleeker.

Scorpænodes Bleeker, Nat. Hist. Ned. Ind., XIII, 1857, 371 (*Scorpæna*
polylepis Bleeker).

Sebastopsis Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 278 (*Scorpæna*
polylepis Bleeker).

Sebastodes Sauvage, Ann. Sci. Nat. Zool., V, 1873, 1 (*Sebastes minutus*
Cuvier); not *Sebastodes* Gill, 1861.

2887. Scorpænodes xyris (Jordan and Gilbert).

West coast of Mexico.

Sebastopsis xyris Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
369, Cape San Lucas, Lower California.

Genus 994. HELICOLENUS Goode and Bean.

Helicolenus Goode and Bean, Oceanic Ichth., 1896, 248 (*Scorpæna*
dactylopterus De la Roche).

2888. Helicolenus dactylopterus (De la Roche). Seran imperial; Fanegal; Cardonniera; Scorfanudi; Funal; Crabra; Redfish.

Deep waters of Atlantic off both coasts from Narragansett and Chesapeake Bays, and to coasts of Italy and Spain.

Scorpæna dactyloptera De la Roche, Ann. Mus., XIII, 1809, pl. 22,
fig. 2, Ivica, Barcelona.

Sebastes imperialis Cuvier and Valenciennes, Hist. Nat. Poiss., IV,
1829, 246 (336), Nice.

Helicolenus maderensis Goode and Bean, Oceanic Ichth., 1895, 250,
Madeira, and in the Gulf Stream.

Genus 995. SCORPÆNA (Artedi) Linnæus.

Scorpæna (Artedi) Linnæus, Syst. Nat., ed. X, 1758 266 (*S. porcus*
Linnæus).

Parascorpæna Bleeker, Versl. Ak. Amsterdam., IX, pt. 3, 1876, 295
(*Scorpæna picta* Kuhl and van Hasselt in Cuvier and Valenciennes).

Pseudosebastes Sauvage, Nouv. Arch. Mus. Hist. Nat. Paris, II, 1878
(*Sebastes bougainvillei* Cuvier and Valenciennes).

2889. Scorpæna atlantica Nichols and Breder.

Coast of Texas.

Scorpæna russula atlantica Nichols and Breder, Proc. Biol. Soc. Wash.,
XXXVII, 1924 (Feb. 21), 21, Pl. VII, off Galveston, Tex.

2890. Scorpæna colesi Nichols.

Coast of North Carolina.

Scorpæna colesi Nichols, Bull. Amer. Mus. Nat. Hist., XXXIII, 1914,
537, fig. 1, Cape Lookout, N. C.

2891. Scorpæna plumieri Bloch. Rescacio; Poison grouper; Plumier's pigfoot.

West Indies and Brazil, north to Florida; rarely northward to Woods Hole.

Scorpæna plumieri Bloch, Nya. Handl. Stockh., X, 1789, 234, Martinique.

Scorpæna bufo Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829,
221 (306), Martinique.

Scorpæna rescacio Poey, Memorias, II, 1861, 169, Cuba.

Apistes exul Gosse, Nat. Sojourn Jamaica, 1851, 207, Jamaica.

2892. *Scorpæna mystes* Jordan and Starks. *Lapon*.
Coast of Mexico.
Scorpæna mystes Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser. V, 1895, 491, pl. 52, Mazatlan, Mexico.
2893. *Scorpæna grandicornis* Cuvier and Valenciennes. *Lionfish; Poison grouper; Sculpin*.
Florida Keys to Brazil, in the Gulf Stream to Woods Hole, Mass.
Scorpæna grandicornis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 227 (309), pl. 86, Martinique, Porto Rico, Habana, San Domingo.
2894. *Scorpæna brasiliensis* Cuvier and Valenciennes.
Atlantic coast, from Charleston to Rio Janeiro.
Scorpæna brasiliensis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 224 (305), Brazil.
Scorpæna stearnsi Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 421, Pensacola, Fla.
2895. *Scorpæna inermis* Cuvier and Valenciennes.
West Indies, north to Florida.
Scorpæna inermis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 228 (311), Martinique.
Scorpæna occipitalis Poey, Memorias, II, 1861, 171, Cuba.
Scorpæna calcarata Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 422, Clearwater Harbor, Fla.
2896. *Scorpæna sonoræ* Jenkins and Evermann.
Guaymas, Gulf of California, and Santa Margarita Island.
Scorpæna sonoræ Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 150, Guaymas, Sonora.
2897. *Scorpæna guttata* Girard. *Scorpene; Scorpion; Sculpin*.
Coast of California, from Monterey southward to Cedros Island.
Scorpæna guttata Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 145, Monterey.
2898. *Scorpæna russula* Jordan and Bollman.
Pacific coast of Colombia.
Scorpæna russula Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 165, Pacific coast of Colombia.
2899. *Scorpæna histrio* Jenyns.
Pacific coast of America, Panama to Juan Fernandez; Galapagos Islands.
Scorpæna histrio Jenyns, Voy. *Beagle*, Fishes, 1842, 35, pl. 8, Chatham Island, Galapagos Archipelago.
2900. *Scorpæna pannosa* Cramer.
Panama.
Scorpæna pannosa Cramer, Proc. U. S. Nat. Mus., XIX, 1896, 446, with plate, Panama.
2901. *Scorpæna albofasciata* Metzelaar.
Caribbean Sea.
Scorpæna albofasciata Metzelaar, Tropisch Atlantische Vissch., 1919, 145, fig. 43; Bonaire, Arubi.
2902. *Scorpæna albifimbria* Evermann and Marsh.
Porto Rico.
Scorpæna albifimbria Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900, 275, fig. 82, Culebra Island; Porto Rico.
2903. *Scorpæna nuttingi* Evermann and Seale.
West Indies (Barbados).
Scorpæna nuttingi Evermann and Seale, University of Iowa Studies Nat. Hist., X, 1924, 14, 39, Carlisle Bay, Barbados.
2904. *Scorpæna agassizii* Goode and Bean.
Mid-ocean east of Cuba.
Scorpæna agassizii Goode and Bean, Oceanic Ichth., 1896, 247, fig. 243, latitude 32° 13' N., longitude 39° 10' W.

2905. *Scorpaena cristulata* Goode and Bean.

Atlantic Ocean, off coast of Georgia; perhaps also from northern Spain.
Scorpaena cristulata Goode and Bean, Oceanic Ichth., 1896, 247, fig. 242,
 off Georgia.

Scorpana echinita Koehler, Ann. Univ. Lyons, XXVI, 1896, 474, pl. 27,
 figs. 4 and 6, Bay of Biscay, in 700 fathoms.

Genus 996. MERINTHE Snyder.

Merinthe Snyder, Bull. U. S. Fish Com., XXII, 1902, 536 (*Sebastes
 macrocephalus* Sauvage).

2906. *Merinthe nematophthalma* (Günther).

West Indies, exact locality uncertain.

Sebastes nematophthalmus Günther, Cat., II, 1861, 99, West Indies.

Genus 997. PONTINUS Poey.

Pontinus Poey, Memorias, II, 1861, 172 (*P. castor* Poey).

2907. *Pontinus castor* Poey.

Cuba.

Pontinus castor Poey, Memorias, II, 1861, 173, Habana, Cuba.

2908. *Pontinus furcirhinus* Garman.

Eastern Pacific in deep water.

Pontinus furcirhinus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
 51, Pl. VII, numerous Albatross stations off Panama.

2909. *Pontinus pollux* Poey.

Cuba.

Pontinus pollux Poey, Memorias, II, 1861, 174, Habana, Cuba.

2910. *Pontinus rathbuni* Goode and Bean.

Coast of North Carolina, probably in the Gulf Stream.

Pontinus rathbuni Goode and Bean, Oceanic Ichth., 1895, 255, fig. 245,
 off Cape Hatteras, N. C.

2911. *Pontinus macrolepis* Goode and Bean.

Yucatan.

Pontinus macrolepis Goode and Bean, Oceanic Ichth., 1895, 257, fig. 247,
 off Yucatan.

2912. *Pontinus longispinis* Goode and Bean.

Coast of western Florida.

Pontinus longispinis Goode and Bean, Oceanic Ichth., 1895, 258, fig. 246,
 west coast of Florida, lat. 28° 36' N., long. 85° 33' 30'' W., in 111
 fathoms.

2913. *Pontinus beanorum* Evermann and Marsh.

Porto Rico.

Pontinus beanorum Evermann and Marsh, Bull. U. S. Fish Com., XX,
 pt. 1, 1900, 279, fig. 85, San Juan Harbor, Porto Rico.

2914. *Pontinus sierra* (Gilbert).

Gulf of California.

Scorpaena (Sebastoplus) sierra Gilbert, Proc. U. S. Nat. Mus., XIII,
 1890, 82, Gulf of California, at Albatross stations 2996 and 3011 in
 112 and 71 fathoms.

2915. *Pontinus bergii* (Evermann and Marsh).

Porto Rico.

Scorpana bergii Evermann and Marsh, Bull. U. S. Fish Com., XX, pt. 1,
 1900, 276, fig. 83, Mayaguez, Culebra; perhaps not a *Pontinus*.

Genus 998. SETARCHES Johnson.

Setarches Johnson, Proc. Zool. Soc. Lond., 1862, 177 (*S. guntheri*
 Johnson).

2916. *Setarches parmatus* Goode.

Coasts of Rhode Island, North Carolina, and western Florida, in deep
 water.

Setarches parmatus Goode, Proc. U. S. Nat. Mus., III, 1880, 480, off
 coast of Rhode Island.

Family 226. ANOPILOPOMIDÆ. Skilfishes; Sablefishes

Genus 999. ANOPILOPOMA Ayres.

Anoplopoma Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 27 (*A. merlangus* Ayres=*Gadus fimbria* Pallas).

Scombrocottus Peters, Monatsber. Akad. Wiss. Berlin, 1872, 569 (*S. salmonicus* Peters=*Gadus fimbria* Pallas).

2917. *Anoplopoma fimbria* (Pallas). Beshow; Coalfish; Skil; Black cod; Sablefish.

Unalaska to San Diego, common northward; a valued food fish in Alaska when it becomes fat.

Gadus fimbria Pallas, Zoogr. Rosso-Asiat., III, 1811, 200, probably Aleutian Islands.

Anoplopoma merlangus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 27, San Francisco market.

Scombrocottus salmonicus Peters, Monatsber. Akad. Wiss. Berlin, 1872, 569, Vancouver Island.

Family 227. ERILEPIDÆ. Fat priests

Genus 1000. ERILEPIS Gill.

Myriolepis Lockington, Proc. U. S. Nat. Mus., III, 1880, 248 (*Myriolepis zonifer* Lockington); name preoccupied in fossil fishes.

Eriolepis Gill, Science, Jan. 26, 1894, 54 (*Myriolepis zonifer* Lockington).

Ebisus Jordan and Snyder, Jour. Coll. Sci. Tokyo, XV, 1901, 308 (*E. sagamius* Jordan and Snyder).

2918. *Eriolepis zonifer* (Lockington). Aburabozu; Fat priest.

Coast of Japan to Alaska; once taken at Monterey Bay, Calif.

Myriolepis zonifer Lockington, Proc. U. S. Nat. Mus., III, 1880, 248, Monterey.

Ebisus sagamius Jordan and Snyder, Jour. Coll. Sci., Tokyo, XV, 1901, 308, Misaki, Japan.

Family 228. HEXAGRAMMIDÆ. Greenlings

Genus 1001. HEXAGRAMMOS Steller.

Hexagrammos Steller, in Tilesius, Act. Ac. Petrop., II, 1810, 335 (*H. stelleri* Tilesius=*H. asper* Tilesius).

Labrax Pallas, Mém. Acad. Sci. Petersb., II, 1810, 382 (*L. lagocephalus* Pallas), not of Klein nor of Cuvier.

Lebius (Steller MS.) Pallas, Zoog. Rosso-Asiat., III, 1811, 279 (*Labrax superciliosus* Pallas).

Chirus Steller, in Pallas, loc. cit., 279 (*Labrax superciliosus* Pallas).

Octogrammus Bleeker, Versl. Akad. Amsterdam (2), VIII, 1874, 370 ("Labrax octogrammus Schlegel"=*Octogrammus pallasi* Bleeker).

Acantholebius Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Chiropsis nebulosus* Girard=*Hexagrammos stelleri* Tilesius); specimen with broken dorsal spines.

Grammatopleurus Gill, loc. cit., XIII, 1861, 166 (*Labrax lagocephalus* Pallas).

2919. *Hexagrammos decagrammus* (Pallas). Rock trout; Boregat; Bodieron North Pacific, from Point Conception to southern Alaska; common south.

Labrax decagrammus Pallas, Mém. Acad. Petersb., II, 1810, 386, pl. 22, fig. 2, Elias Bay.

Chirus guttatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 132, San Francisco.

Grystes lineatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 9, Bay of San Francisco.

Chiropsis constellatus Girard, U. S. Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 42, San Francisco.

Chirus maculo-seriatus Lockington, Proc. U. S. Nat. Mus., III, 1880, 55, San Francisco.

2920. *Hexagrammos octogrammus* (Pallas). *Alaska greenfish*.
Aleutian Islands, westward to Petropaulski and Robben Island.
Labrax octogrammus Pallas, Zoogr. Rosso-Asiat., III, 1811, 283, Kamchatka and Aleutian Islands; doubtful species.
Chirus ordinatus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 28, Unalaska.
Octogrammus pallasii Bleeker, Versl. Akad. Amsterdam, VI, 1870; after Pallas.
2921. *Hexagrammos stelleri* Tilesius. *Greenling*.
Kamchatka and Unalaska to San Francisco; abundant in Puget Sound and northward.
Hexagrammos stelleri Tilesius, Mém. Acad. St. Petersb., II, 1809, 335, Kamchatka.
Hexagrammos asper Steller in Tilesius, loc. cit., 340, pl. 15, 1810, Kamchatka.
Labrus hexagrammus Pallas, loc. cit., 395, pl. 23, fig. 3, 1810, Kamchatka.
Chiropsis nebulosus Girard, U. S. Pac. R. R. Surv., X, Fishes, 1858, 45, Puget Sound and at Fort Steilacoom.
Chirus trigrammus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 29, Unalaska.
2922. *Hexagrammos superciliosus* (Pallas). *Red rock trout*.
Bering Sea to Monterey Bay.
Labrax superciliosus Pallas, Mém. Acad. St. Petersb., II, 1810, 388, Unalaska.
Chirus pictus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 132, San Francisco; Humboldt Bay.
Chirus baltas Cope, Proc. Amer. Phil. Soc., XIII, 1873, 28, Captains Harbor, Unalaska.
Hexagrammus scaber Bean, Proc. U. S. Nat. Mus., IV, 1881, 154, Amchitka, Unalaska.
2923. *Hexagrammos lagocephalus* (Pallas).
Western Bering Sea, Kuril Islands; Alaska; Attu.
Labrax lagocephalus Pallas, Mém. Acad. St. Petersb., II, 1810, 384, Kuril Islands.
- Genus 1002. **PLEUROGRAMMUS** Gill. *Atka mackerels*.
Pleurogrammus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Labrax monopterygius* Pallas).
2924. *Pleurogrammus monopterygius* (Pallas). *Atka mackerel*; *Atkafish*; *Yellowfish*.
Northern Pacific, common about Atka and other Aleutian Islands east to Unalaska.
Labrax monopterygius Pallas, Mém. Acad. Sci. St. Petersburg, II, 1810, 391, Unalaska.

Family 229. OPHIODONTIDÆ. Cultus cods

Genus 1003. OPHIODON Girard.

- Ophiodon* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133 (*Ophiodon elongatus* Girard).
Oplopoma Girard, loc. cit., VIII, 1856, 135 (*Oplopoma pantherina* Girard=*Ophiodon elongatus* Girard; young).
2925. *Ophiodon elongatus* Girard. *Cultus cod*; *Blue cod*; *Buffalo cod*; *Ling*.
Pacific coast from Alaska to Santa Barbara.
Ophiodon elongatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 133, San Francisco.
Oplopoma pantherina Girard, loc. cit., VIII, 1856, 135, Cape Flattery, Wash.

Family 230. OXYLEBIIDÆ

Genus 1004. OXYLEBIUS Gill.

- Oxylebius* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 277 (*O. pictus* Gill).
2926. *Oxylebius pictus* Gill.
From Monterey northward to Puget Sound; not rare.
Oxylebius pictus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 278, California; no definite locality given.

Family 231. ZANIOLEPIDÆ

Genus 1005. ZANIOLEPIS Girard.

Zaniolepis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 202 (*Z. latipinnis* Girard).

2927. *Zaniolepis latipinnis* Girard.

Coast of California, from San Francisco northward.

Zaniolepis latipinnis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 202, Fort Steilacoom, Puget Sound.

Genus 1006. XANTOCLES Jordan.

Xantocles Jordan, Copeia, Oct. 4, 1917, 88 (*Zaniolepis frenatus* Eigenmann).

2928. *Xantocles frenatus* (Eigenmann).

Shore banks of southern California; rare.

Zaniolepis frenatus Eigenmann, West American Scientist, VI, Nov. 9, 1889, 147, Cortez Banks off San Diego.

Family 232. JORDANIIDÆ

Genus 1007. JORDANIA Starks.

Jordania Starks, Proc. Acad. Nat. Sci. Phila., XLVII, 1895, 410 (*J. zonope* Starks).

2929. *Jordania zonope* Starks.

Puget Sound.

Jordania zonope Starks, Proc. Acad. Nat. Sci. Phila., XLVII, 1895, 410, Port Orchard, Puget Sound.

Genus 1008. PARICELINUS Eigenmann and Eigenmann.

Paricelinus Eigenmann and Eigenmann, West Amer. Sci., VI, 1889, 131 (*P. hopliticus* Eigenmann and Eigenmann).

2930. *Paricelinus hopliticus* Eigenmann and Eigenmann.

Cortez Banks, off San Diego.

Paricelinus hopliticus Eigenmann and Eigenmann, West Amer. Sci., VI, Nov. 9, 1889, 131, Cortez Banks.

Genus 1009. ALCIDEA Jordan and Evermann.

Alcidaea Jordan and Evermann, Fishes North and Mid. Amer., 1886, 1898 (*Paricelinus thoburni* Gilbert).

2931. *Alcidaea thoburni* (Gilbert).

Coast of Oregon.

Paricelinus thoburni Gilbert, Rept. U. S. Fish Com., XIX, 1893, 432, pl. 30, coast of Oregon, in 75 fathoms.

Family 233. ICELIDÆ. Scaled sculpins

Genus 1010. CHITONOTUS Lockington.

Chitonotus Lockington, Proc. U. S. Nat. Mus., IV, 1881, 141 (*C. megacephalus* Lockington = *Artedius pugetensis* Steindachner).

2932. *Chitonotus pugetensis* (Steindachner).

San Francisco to Puget Sound.

Artedius pugetensis Steindachner, Ichth. Beitr., V, 1876, 133, pl. 14, fig. 2, Puget Sound.

Chitonotus megacephalus Lockington, Proc. U. S. Nat. Mus., IV, 1881, 142, off San Francisco.

Genus 1011. TARANDICHTHYS Jordan and Evermann.

Tarandichthys Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 225 (*Icelinus filamentosus* Gilbert).

2933. *Tarandichthys cavifrons* (Gilbert).

Coast of southern California.

Icelinus cavifrons Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 83, off Santa Barbara Islands, at Albatross stations 2907 and 2945, in 44 and 30 fathoms.

2934. *Tarandichthys filamentosus* (Gilbert).
Coast of southern California; Alaska, off St. Mary's Mission; Hood Canal, Puget Sound.
Icelinus filamentosus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 85, off Santa Barbara Islands, in 145 and 55 fathoms.
2935. *Tarandichthys tenuis* (Gilbert).
Coast of southern California, Alaska, Fort Rupert and Gulf of Georgia.
Icelinus tenuis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 86, off Santa Barbara Islands, at *Albatross* stations 2893, 2946, and others, in 45 to 150 fathoms.
- Genus 1012. *ICELINUS* Jordan.
Icelinus Jordan, Cat. Fish. N. Amer., 1885, 110 (*Artedius quadriseriatus* Lockington).
2936. *Icelinus fimbriatus* Gilbert.
Southern California.
Icelinus fimbriatus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 87, off Santa Barbara Islands, at *Albatross* stations 2893 and 2975, in 145 and 36 fathoms.
2937. *Icelinus oculatus* Gilbert.
Coast of southern California.
Icelinus oculatus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 87, off Santa Barbara Islands, at *Albatross* station 2935, in 124 fathoms.
2938. *Icelinus burchami* Evermann and Goldsborough.
Loring and Behm Canal, Alaska.
Icelinus burchami Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 297, fig. 48, off Loring, Alaska.
2939. *Icelinus borealis* Gilbert.
Coast of Alaska, north and south of Aleutian Islands and in Bristol Bay.
Icelinus borealis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 415, pl. 25, Aleutian Islands and Bristol Bay at *Albatross* stations 3213, 3214, and others, in 11 to 121 fathoms.
2940. *Icelinus quadriseriatus* (Lockington).
Off San Francisco, between Point Reyes and Golden Gate.
Artedius quadriseriatus Lockington, Proc. U. S. Nat. Mus., II, 1879, 330, off San Francisco.
2941. *Icelinus strabo* Starks.
Puget Sound at Port Ludlow, Wash.
Icelinus strabo Starks, Proc. Calif. Acad. Sci., 2d. ser., VI, 1896, 551, Port Ludlow, Wash.
2942. *Icelinus fuscescens* Gilbert.
Southern California, Santa Barbara Islands to Monterey.
Icelinus fuscescens Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 340, pl. 17, fig. 9, Santa Barbara Islands, depth 260 to 310 fathoms.
- Genus 1013. *ASTROLYTES* Jordan and Starks.
Astrolytes Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 807 (*Artedius fenestralis* Jordan and Gilbert).
2943. *Astrolytes fenestralis* (Jordan and Gilbert).
Puget Sound to Unalaska.
Artedius fenestralis Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 577, Puget Sound.
Artedius asperulus Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 553, Port Ludlow, Wash.
- Genus 1014. *PARASTROLYTES* Hubbs.
Parastrolytes Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 2 (*Artedius notospilotus* Girard).
2944. *Parastrolytes notospilotus* (Girard).
Coast of California from Straits of Fuca southward; abundant at Santa Barbara and Puget Sound.
Artedius notospilotus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 134, Tomales Bay, Calif.

Genus 1015. AXYRIAS Starks.

Axyrias Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 554 (*Axyrias harringtoni* Starks).

2945. *Axyrias harringtoni* Starks.

Puget Sound in the vicinity of Port Ludlow, Wash.

Axyrias harringtoni Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 554, pl. 74, Port Ludlow, Wash.

Genus 1016. ARTEDIUS Girard.

Artedius Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 134 (*Scorpanichthys lateralis* Girard).

2946. *Artedius lateralis* (Girard).

Pacific coast of North America, from Puget Sound to Port Harford, Calif.

Scorpanichthys lateralis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 145, San Luis Obispo (Port Harford), Calif.

Genus 1017. PARARTEDIUS Hubbs.

Parartedius Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 3 (*P. hankinsoni* Hubbs).

2947. *Parartedius hankinsoni* Hubbs.

Tidepool, near end of Point Loma, California.

Parartedius hankinsoni Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 171, Feb. 20, 1926, 4, Tidepool near end of Point Loma, Calif.

Genus 1018. ALLARTEDIUS Hubbs.

Allartedius Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 8 (*A. corallinus* Hubbs).

2948. *Allartedius corallinus* Hubbs.

Tidepool on Point Lobos, Monterey Co., Calif. Only one specimen known.

Allartedius corallinus Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 8, deep low pool on Point Lobos, Monterey Co., Calif.

Genus 1019. ARCHAULUS Gilbert and Burke.

Archaulus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 36 (*A. biseriatus* Gilbert and Burke).

2949. *Archaulus biseriatus* Gilbert and Burke.

West Bering Sea.

Archaulus biseriatus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 36, Petrel Bank, Bering Sea.

Genus 1020. ARTEDIELLUS Jordan.

Artediellus Jordan, Cat. Fish. N. Amer., 1885, 110 (*Cottus uncinatus* Reinhardt).

2950. *Artediellus uncinatus* (Reinhardt).

Greenland to Labrador.

Cottus uncinatus Reinhardt, K. Dansk. Vid. Selsk. Natur. Math. Afh., VI, 1833; XLIV, 1837, Greenland.

Artediellus atlanticus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1906, Massachusetts Bay.

2951. *Artediellus pacificus* Gilbert.

Coast of Alaska; in Bristol Bay, south of Sannak Island, and north of Unalaska.

Artediellus pacificus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 416, Unalaska, Sannak, Bristol Bay, at *Albatross* station 3216, south of Sannak Island, many other stations in Bristol Bay, and station 3323 north of Unalaska, in 8 to 61 fathoms.

2952. *Artediellus clarki* (Evermann and Goldsborough).

Bering Sea.

Blennicottus clarki Evermann and Goldsborough, Bull. U. S. Fish Com., XXVI, 1906, 323, fig. 85; Bering Sea. Young, perhaps of *Artediellus pacificus*.

2953. *Artediellus miacanthus* Gilbert and Burke.
Western Bering Sea.
Artediellus miacanthus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 47, fig. 7, east coast of Kamchatka.
2954. *Artediellus camchaticus* Gilbert and Burke.
Western Bering Sea.
Artediellus camchaticus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 46, fig. 6, Avatcha Bay, east coast of Kamchatka.
- Genus 1021. *RUSCARIUS* Jordan and Starks.
Ruscarius Jordan and Starks, Proc. Calif. Acad. Sci., 2d series, V, 1895, 805 (*Ruscarius meanyi* Jordan and Starks).
2955. *Ruscarius meanyi* Jordan and Starks.
Puget Sound, at Port Orchard near Seattle.
Ruscarius meanyi Jordan and Starks, Proc. Calif. Acad. Sci., 2d series, V, 1895, 805, pl. 80, Port Orchard, Puget Sound.
- Genus 1022. *RUSCARIOPS* Hubbs.
Ruscariops Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 12 (*R. creaseri* Hubbs).
2956. *Ruscariops creaseri* Hubbs.
Low rock pool at Bird Rock, San Diego County, Calif.
Ruscariops creaseri Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 170, Feb. 20, 1926, 12, very low rock pool at Bird Rock, San Diego Co., Calif.
- Genus 1023. *RASTRINUS* Jordan and Evermann.
Rastrinus Jordan and Evermann, Check List, 1895, 437 (*Icelus scutiger* Bean).
2957. *Rastrinus scutiger* (Bean).
South of the Alaskan Peninsula.
Icelus scutiger Bean, Proc. U. S. Nat. Mus., XIII, 1890, 41, Trinity Islands, Alaska, at Albatross station 2853, in 159 fathoms.
- Genus 1024. *ICELUS* Krøyer.
Icelus Krøyer, Natur. Hist. Tidsskr., I, 1845, 253 (*Icelus hamatus* Krøyer=*Cottus bicornis* Reinhardt).
2958. *Icelus bicornis* (Reinhardt).
Arctic seas, circumpolar; Spitzbergen to northern Russia, Finland, Alaska, Greenland, Labrador, and Cape Cod.
Cottus bicornis Reinhardt, Vid. Selsk. Natur. og Math. Afh., VIII, 1841, LXXV, Greenland.
Icelus hamatus Krøyer, Nat. Hist. Tidsskr., I, 1845, 253, Belsund in Spitzbergen.
Icelus furciger Malm, Forhandl. Skand. Naturf., 1865, 9 Mote, 410, Bohuslan, Sweden.
2959. *Icelus spiniger* Gilbert.
Coast of Alaska in the vicinity of Unalaska Island and in Bristol Bay.
Icelus spiniger Gilbert, Rept. U. S. Fish Com., XIX, 1893, 412, pl. 24, fig. 1, Bristol Bay and Unalaska, at Albatross stations 3216, 3223, and many others, in 17 to 121 fathoms.
2960. *Icelus euryops* Bean.
Bering Sea, off Trinity Islands, Alaska.
Icelus euryops Bean, Proc. U. S. Nat. Mus., XIII, 1890, 41, off Trinity Islands, at Albatross station 2853, in 159 fathoms.
2961. *Icelus vicinalis* Gilbert.
Bristol Bay, Alaska.
Icelus vicinalis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 413, Bristol Bay at Albatross stations 3324, 3330, 3331, and 3332, in 109 to 406 fathoms.
2962. *Icelus canaliculatus* Gilbert.
Bering Sea north of Unalaska.
Icelus canaliculatus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 412, pl. 24, fig. 2, off Unalaska, at Albatross station 3329, in 399 fathoms.

- 2963. *Icelus uncinialis* Gilbert and Burke.**
Coast Bering Sea, off Commander Islands.
Icelus uncinialis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 39, fig. 2, Petrel Bank, near Commander Islands.
- 2964. *Icelus spatula* Gilbert and Burke.**
East coast of Kamchatka.
Icelus spatula Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 41, fig. 3, Avatcha Bay.
- 2965. *Icelus australis* (Eigenmann and Eigenmann).**
Cortez Banks off San Diego.
Icelinus australis Eigenmann and Eigenmann, West Amer. Sci., 1889, 131, Cortez Banks, Calif.
- Genus 1025. STELGIDONOTUS Gilbert and Thompson.**
Stelgidonotus Gilbert and Thompson, Proc. U. S. Nat. Mus., XXVIII, 1905, 977 (*S. latifrons* Gilbert and Thompson).
- 2966. *Stelgidonotus latifrons* Gilbert and Thompson.**
Puget Sound region, Admiralty Head, Friday Harbor.
Stelgidonotus latifrons Gilbert and Thompson, Proc. U. S. Nat. Mus., XXVIII, 1905, 977, Friday Harbor, Wash.
- Genus 1026. RADULINUS Gilbert.**
Radulinus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 88 (*R. asprellus* Gilbert).
- 2967. *Radulinus boleoides* Gilbert.**
Off Santa Catalina Island in shallow water.
Radulinus boleoides Gilbert, Report U. S. Fish Com., XXIV, 1898, 26, pl. 1, and in Jordan and Evermann, Fishes North and Mid. Amer., II, 1898, 1919, Santa Catalina Island, Calif.
- 2968. *Radulinus asprellus* Gilbert.**
Coast of Oregon and Washington, and in Puget Sound.
Radulinus asprellus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 88, off Oregon and Washington, at Albatross stations 3046, 3057, and others, in 43 to 77 fathoms.
- Genus 1027. STELGISTROPS Hubbs.**
Stelgistrops Hubbs, Occ. Papers, Mus. Zool. Univ. Mich. No. 170, Feb. 20, 1926, 8 (*Stelgistrum beringianum* Gilbert and Burke).
- 2969. *Stelgistrops beringiana* (Gilbert and Burke).**
South Bering Sea.
Stelgistrum beringianum Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 52, fig. 9, Petrel Bank, Aleutian Islands.
- Genus 1028. THYRISCUS Gilbert and Burke.**
Thyriscus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 43 (*T. anoplus* Gilbert and Burke).
- 2970. *Thyriscus anoplus* Gilbert and Burke.**
Bering Sea.
Thyriscus anoplus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 43, fig. 4, Attu Island.
- Genus 1029. TRIGLOPS Reinhardt.**
Triglops Reinhardt, Vid. Selsk. Natur. Math. Afh., V, 1832, LII (*T. pingeli* Reinhardt).
- 2971. *Triglops pingeli* Reinhardt.**
North Atlantic, from Spitzbergen and western Norway to Greenland.
Triglops pingeli Reinhardt, Vid. Selsk. Natur., V, 1832, LII, Greenland.
Triglops pleurostictus Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 81, Godhaven, Greenland.
- 2972. *Triglops ommatistius* Gilbert.**
North Atlantic coast of North America, Newfoundland to Cape Ann.
Triglops ommatistius Gilbert, Proc. U. S. Nat. Mus., XLIV, 1913, 465, Gloucester, Mass.; heretofore wrongly called *Triglops pingeli*, which is mainly a European species.

2973. *Triglops terræ-novæ* Gilbert.
Coast of Newfoundland.
Triglops ommatistius terræ-novæ Gilbert, Proc. U. S. Nat. Mus., XLIV, 1913, 467, off Newfoundland, in 39 fathoms.
2974. *Triglops metopias* Gilbert and Burke.
West Bering Sea.
Triglops metopias Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 50, fig. 8, Petrel Bank, Bering Sea.
2975. *Triglops beani* Gilbert.
Alaska, both north and south of the Aleutian Islands and in Bristol Bay.
Triglops beani Gilbert, Rept. U. S. Fish Com., XIX, 1893, 426, pl. 28, upper fig., Aleutian Islands and Bristol Bay, at Albatross stations 3214, 3217, and many others, in $7\frac{1}{4}$ to 42 fathoms.
2976. *Triglops scepticus* Gilbert.
Aleutian Islands, south of Sannak and north of Unalaska Island.
Triglops scepticus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 428, pl. 28, lower fig., Aleutian Islands, at Albatross stations 3215, 3222, and others, in 43 to 138 fathoms.
- Genus 1030. **PRIONISTIUS** Bean.
Prionistius Bean, Proc. U. S. Nat. Mus., VI, 1883, 355 (*P. macellus* Bean).
2977. *Prionistius macellus* Bean.
British Columbia, in Carter Bay.
Prionistius macellus Bean, Proc. U. S. Nat. Mus., VI, 1883, 355, Carter Bay, British Columbia.
- Genus 1031. **ELANURA** Gilbert.
Elanura Gilbert, Rept. U. S. Fish Com., XIX, 1893, 429 (*E. forficata* Gilbert).
2978. *Elanura forficata* Gilbert.
Aleutian Islands, south of Sannak and north of Unimak Island.
Elanura forficata Gilbert, Rept. U. S. Fish Com., XIX, 1893, 430, pl. 30, fig. 1, Aleutian Islands, at Albatross stations 3213, 3214, and 3222, in 38 to 50 fathoms.
- Genus 1032. **STERNIAS** Jordan and Evermann.
Sternias Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1926 (*Triglops xenostethus* Gilbert).
2979. *Sternias xenostethus* (Gilbert).
Bering Sea, north to Unalaska.
Triglops xenostethus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 429, pl. 29, two figures, north of Unalaska, at Albatross station 3230, in 34 fathoms.
- Genus 1033. **PTERYGIOCOTTUS** Bean and Weed.
Pterygiocottus Bean and Weed, Trans. Roy. Soc. Canada, XII, 1920, 73 (*Pterygiocottus macouni* Bean and Weed).
2980. *Pterygiocottus macouni* Bean and Weed.
Vancouver Island.
Pterygiocottus macouni Bean and Weed, Trans. Roy. Soc. Canada, XIII, 1920, 73, Vancouver Island.
- Genus 1034. **MELLETES** Bean.
Melletes Bean, Proc. U. S. Nat. Mus., II, 1879, 354 (*M. papilio* Bean).
2981. *Melletes papilio* Bean.
Aleutian Islands.
Melletes papilio Bean, Proc. U. S. Nat. Mus., II, 1879, 354, St. Paul Island, Alaska.
- Genus 1035. **HEMILEPIDOTUS** Cuvier.
Hemilepidotus Cuvier, Règne Animal, ed. 2, II, 1829, 165 (*Cottus hemilepidotus* Tilesius).
Temnistia Richardson, Fauna Bor.-Amer., III, 1831, 59 (*Blepsias ventricosus* Eschscholtz = *Cottus hemilepidotus* Tilesius).

2982. *Hemilepidotus hemilepidotus* (Tilesius). *Red sculpin*.
Kamchatka to San Francisco; not common in Bering Sea; abundant from Sitka to Puget Sound.
? *Cottus hemilepidotus* Tilesius, Mém. Acad. Petersb., III, 1810, 262, Sea of Okhotsk.
Cottus trachurus Pallas, Zoogr. Ross.-Asiat., III, 1811, 138, Kuril Islands.
Hemilepidotus tilesii Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 203 (276), pl. 85, after Tilesius and Pallas.
? *Blepsias ventricosus* Eschscholtz, Zool. Atlas, 3d Heft, 1829, 14, t. 13, Norfolk Sound and Sitka.
Hemilepidotus gibbsii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 13, no definite locality; Northwest boundary survey.
2983. *Hemilepidotus jordani* Bean. *Irish Lord*; *Yellow sculpin*.
Alaska; Unalaska.
Hemilepidotus jordani Bean, Proc. U. S. Nat. Mus., IV, 1881, 153, Unalaska.
2984. *Hemilepidotus zapus* Gilbert and Burke.
Bering Sea.
Hemilepidotus zapus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 54, fig. 10, Attu Island.
- Genus 1036. **CALYCILEPIDOTUS** Ayres.
Calycepidotus Ayres, Proc. Calif. Acad. Nat. Sci., ed. 2, I, 1855, 81 (76) (*C. spinosus* Ayres).
2985. *Calycepidotus spinosus* Ayres.
Coast of California; known only from about Monterey and San Francisco.
Calycepidotus spinosus Ayres, Proc. Calif. Acad. Nat. Sci., ed. 2, I, 1855, 81 (76), San Francisco.
- Genus 1037. **ENOPHRYS** Swainson.
Enophris Swainson, Classa. Fishes, II, 1839, 271 (*Cottus claviger* Cuvier and Valenciennes).
2986. *Enophris claviger* (Cuvier and Valenciennes).
Bering Sea.
Cottus claviger Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 143 (195), pl. 79, Kamchatka.
Cottus egeus Gray, in Cuvier and Valenciennes, loc. cit., 143 (195), same type.
- Genus 1038. **ASPICOTTUS** Girard.
Aspicottus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 130 (*A. bison* Girard).
Clypeocottus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 12 (*C. robustus* Ayres = *Aspicottus bison* Girard).
2987. *Aspicottus bison* Girard. *Buffalo sculpin*.
San Francisco to Alaska; abundant about Puget Sound.
Aspicottus bison Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 130, San Francisco.
Clypeocottus robustus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 11, San Francisco.
2988. *Aspicottus taurinus* (Gilbert).
Monterey Bay.
Enophris taurinus Gilbert, Proc. U. S. Nat. Mus., XLVII, 1915, 135, Monterey Bay.
- Genus 1039. **CERATOCOTTUS** Gill.
Ceratocottus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 165 (*Cottus diceraus* Pallas).
2989. *Ceratocottus diceraus* (Pallas).
Alaska and Kamchatka.
Cottus diceraus Pallas, Nov. Act. Petropol., 1783, 354, pl. 10, fig. 7, Petropaulski, Kamchatka.
Synanceia cervus Tilesius, Mém. Acad. Petersb., III, 1811, 278, pl. 13, Petropaulski.
Cottus stelleri Bloch and Schneider, Syst. Ichth., 1801, 63, after Steller.

2990. *Ceratocottus lucasi* Jordan and Gilbert.

Bering Sea.

Ceratocottus lucasi Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1940, St. Paul Island, Bering Sea.

Family 234. BLEPSIIDÆ

Genus 1040. HISTIOCOTTUS Gill.

Peropus Lay and Bennett, Beechey's Voy., Zool., Fish., 1839, 50 (*Blepsias bilobus* Cuvier and Valenciennes); name preoccupied.*Histiocottus* Gill, Proc. U. S. Nat. Mus., XI, 1888, 573 (*Blepsias bilobus* Cuvier and Valenciennes).2991. *Histiocottus bilobus* (Cuvier and Valenciennes).

Coast of Alaska and Kamchatka.

Blepsias bilobus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 279 (379), no locality, somewhere off Kamchatka.

Genus 1041. BLEPSIA3 Cuvier.

Blepsias Cuvier, Règne Anim., ed. 2, II, 1829, 167 (*Trachinus cirrhosus* Pallas).2992. *Blepsias cirrhosus* (Pallas). *Nee-kaio-kaiung*.

Alaska to San Francisco; common at Unalaska, but not often south of Puget Sound.

Trachinus cirrhosus Pallas, Zoogr. Rosso-Asiat., III, 1811, 237, Bering Sea.*Blepsia trilobus* Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 276 (375); same types.

Genus 1042. NAUTICHTHYS Girard.

Nautichthys Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 74 (*Blepsias oculo-fasciatus* Girard).*Nautiscus*⁷² Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2019 (*Nautichthys pribilovius* Jordan and Gilbert).

Subgenus NAUTICHTHYS Girard.

2993. *Nautichthys oculo-fasciatus* (Girard).

Pacific coast, Alaska to Monterey, chiefly northward; common in Bristol Bay and about Unalaska.

Blepsias oculo-fasciatus Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 202, Fort Steilacoom, Wash.

Subgenus NAUTISCUS Jordan and Gilbert.

2994. *Nautichthys pribilovius* (Jordan and Gilbert).

Bering Sea, Alaska.

Nautiscus pribilovius Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2020, off St. George Island, Bering Sea.

Family 235. SCORPÆNICHTHYIDÆ. Cabezones

Genus 1043. SCORPÆNICHTHYS Girard.

Scorpænichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 131 (*Hemitriperus marmoratus* Ayres).2995. *Scorpænichthys marmoratus* (Ayres). *Cabezon*.

Pacific coast of America from Puget Sound to San Diego.

Hemitriperus marmoratus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 4, San Francisco.⁷² The genus *Nautiscus* is now regarded as scarcely distinct from *Nautichthys*.

Family 236. COTTIDÆ. Scaleless sculpins

Genus 1044. COTTUS⁷³ Linnæus. *Miller's thumbs*.

Cottus Linnæus, Syst. Nat., Ed. X, 1758, 264 (*C. gobio* Linnæus).

Pegedictis Rafinesque, Ichth. Ohiensis, 1820, 85 (*P. ictalops* Rafinesque = ?*Cottus bairdi* Girard, apparently also confused with the darter *Catonotus flabellaris*).

Uranidea DeKay, New York Fauna: Fishes, 1842, 61 (*U. quiescens* DeKay = *Cottus gracilis* Heckel).

Cottopsis Girard, Proc. Bost. Soc. Nat. Hist., III, 1850, 303 (*Cottus asper* Richardson).

Potamocottus Gill, loc. cit., VIII, 1861, 40 (*P. carolinæ* Gill).

Tauridea Jordan and Rice, in Jordan, Man. Vert., Ed. II, 1878, 255 (*Cottopsis ricei* Nelson).

2996. *Cottus gulosus* (Girard).

Streams of the Coast Ranges in California; Columbia, Klamath, and Sacramento River regions; Alaska; Loring and Boca de Quadra.

Cottopsis gulosus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 129, San Mateo Creek and San Joaquin River, Calif.

Cottopsis parvus Girard, loc. cit., 1854, 144, Monterey, Presidio, Fort Reading, Petaluma.

Uranidea semiscabra centroleura Eigenmann and Eigenmann, West Amer. Scientist, VI, No. 49, 1889, 149, Allen Springs, Lake Co., Calif.

Subgenus COTTOPSIS Girard.

2997. *Cottus asper* Richardson. *Prickly bullhead*.

Streams of the Cascade Range, southeastern Alaska to Oregon; south to Sacramento River.

Cottus asper Richardson, Fauna Bor.-Amer., Fish., 1836, 295, Columbia River at Fort Vancouver.

Trachidermis richardsoni Heckel, Ann. Wiener Mus., II, 1840, 162, Columbia River.

2998. *Cottus evermanni* Gilbert.

Lost River, Oreg.

Cottus evermanni Gilbert, Bull. U. S. Fish Com., XVII, 1897, 11, with figure, Lost River, Lostine, Oreg.

2999. *Cottus rhothea* (Rosa Smith).

Hangman Creek, Tekoa, Washington, and elsewhere in Columbia River Basin.

Uranidea rhothea Rosa Smith, Proc. U. S. Nat. Mus., V, 1882, 347, Spokane Falls, Wash.

3000. *Cottus shasta* Jordan and Starks.

Upper Sacramento Basin, about Mount Shasta.

Cottus shasta Jordan and Starks, Proc. Calif. Acad. Sci. 2d ser., VI, 1896, 224, McCloud River, Baird, Shasta County, Calif.

3001. *Cottus punctulatus* (Gill).

Headwaters of Green River, Wyo.; Silver Creek, Harney County, Oreg.

Potamocottus punctulatus Gill, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 40, Bridger Pass, Wyo.

⁷³ In every cold stream of northern Europe, northern Asia, and northern America species of this genus abound, lurking on the bottom and devouring the eggs of trout which inhabit the same waters. The species are ill differentiated and like those of trout subject to much individual variation. Those of the United States and Canada are not yet well known and the number of species has probably been unduly expanded. Efforts to subdivide the group have not been very successful and we place all the American forms in a single genus, *Cottus*. Western species, allies of *Cottus asper*, termed *Cottopsis*, are in general larger in size, more prickly, with well-developed palatine teeth and the ventral rays 1, 4. Those of the middle west allied to *Cottus bairdi*, called *Potamocottus*, show similar characters but are for the most part smaller and smoother, the colors more mottled. Rafinesque's *Pegedictis ictalops*, the "Cat's-eye Spring fish," seems to us a *Cottus* described carelessly or more likely from memory. In New England and south to Pennsylvania the allies of *Cottus gracilis* called *Uranidea* are small, smooth, without palatine teeth and the ventral rays 1, 3. But all these traits are subject to intergrading. A few species in deeper waters in Lake Michigan and Canada, allies of *Cottus ricei* called *Tauridea*, are more or less rough and have the preopercular spine larger, hooked and somewhat spiral, otherwise much as in *Cottopsis*.

3002. *Cottus semiscaber* (Cope). *Rocky Mountain bullhead*.
Rocky Mountain region in clear streams on both slopes; abundant in Colorado, northern New Mexico, Wyoming, Montana, Idaho, Utah, eastern Washington, and Oregon.
Collopsis semiscaber Cope, Hayden Surv. Mont., 1871, 476, Fort Hall, Idaho.
Uranidea wheeleri Cope, Proc. Amer. Phil. Soc. Phila., XIV, 1874, 138, Beaver River, Utah.
3003. *Cottus asperimus* Rutter.
California; Sacramento-San Joaquin Basin; Fall River.
Cottus asperimus Rutter, Bull. U. S. Bur. Fish., XXVII, 1907, 144, fig. 3, Fall River, Calif.
3004. *Cottus beldingii* Eigenmann and Eigenmann.
Streams of Columbia River Basin, south to Lake Lahontan; abundant east of the Cascades and in Lake Tahoe; fossil in Lahontan Basin, in Pleistocene deposits.
Cottus beldingii Eigenmann and Eigenmann, Amer. Nat., XXV, 1891, 1132, Lake Tahoe.
3005. *Cottus annæ* Jordan and Starks.
Eagle River, a tributary of Grand River, Colo., Colorado River Basin.
Cottus annæ Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 223, Pl. XXVII, Eagle River at Gypsum, Colo.
3006. *Cottus philonips* Eigenmann and Eigenmann.
Columbia River Basin at Field, British Columbia, and in Idaho.
Cottus philonips Eigenmann and Eigenmann, Amer. Nat., XXVI, 1892, 963, Kicking Horse River, Field, British Columbia.
3007. *Cottus klamathensis* Gilbert.
Klamath Lakes, Oreg.
Cottus klamathensis Gilbert, Bull. U. S. Fish. Com., XVII, 1897, 10, figure, Upper Klamath Lake, Oreg.
3008. *Cottus macrops* Rutter.
Fall River, Calif.
Cottus macrops Rutter, Bull. U. S. Bur. Fish., XXVII, 1907, 146, fig. 4, Fall River, Calif.
3009. *Cottus perplexus* Gilbert and Evermann.
Skookumchuck and Newaukum Rivers, near Chehalis, Wash.
Cottus perplexus Gilbert and Evermann, Bull. U. S. Fish Com., XIV, 1894, 202, pl. 20, fig. 1, Skookumchuck River, near Chehalis, Wash.
3010. *Cottus princeps* Gilbert.
Klamath Lakes, Oreg.
Cottus princeps Gilbert, Bull. U. S. Fish Com., XVII, 1897, 12, figure, Upper Klamath Lake, Oreg.
3011. *Cottus bendirei* (Bean).
Walla Walla, Wash.; Rattlesnake Creek near Camp Harney, Oreg., and Goose Creek near Meadows, Idaho.
Potamocottus bendirei Bean, Proc. U. S. Nat. Mus., IV, 1881, 27, Rattlesnake Creek near Camp Harney, Oreg.
3012. *Cottus greeniei* (Gilbert and Culver).
Snake River Basin, Idaho.
Uranidea greeniei Gilbert and Culver, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1965, Thousand Springs, Snake River, Idaho.
3013. *Cottus marginatus* (Bean).
Tributaries of Walla Walla River, Wash.
Uranidea marginata Bean, Proc. U. S. Nat. Mus., IV, 1881, 26, Walla Walla, Wash.
3014. *Cottus tenuis* (Evermann and Meek).
Klamath Lakes, Oreg.
Uranidea tenuis Evermann and Meek, Bull. U. S. Fish Com., XVII, 1897, 83, fig. 6, Upper Klamath Lake, Klamath Falls, Oreg.

3015. *Cottus leiopomus* Gilbert and Evermann.
Wood River, Shoshone, Idaho.
Cottus leiopomus Gilbert and Evermann, Bull. U. S. Fish Com., XIV,
1894, 203, pl. 20, fig. 2, Wood River, Shoshone, Idaho.
3016. *Cottus aleuticus* Gilbert.
Unalaska; Departure Bay, Vancouver Island; southward to Monterey
in the Coast Range.
Uranidea microstoma Lockington, Proc. U. S. Nat. Mus., III, 1880, 58,
St. Paul, Kadiak Island; name preoccupied in *Cottus*.
Cottus aleuticus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 418, streams
at Unalaska; also in Departure Bay, Vancouver Island.
3017. *Cottus chamberlaini* Evermann and Goldsborough.
Southeastern Alaska.
Cottus chamberlaini Evermann and Goldsborough, Bull. U. S. Bur.
Fish., XXVI, 1906, 308, fig. 66, Loring, Alaska.

Subgenus PEGEDICTIS Rafinesque.

3018. *Cottus ictalops* (Rafinesque.) *Miller's thumb; Mufflejaws; Springfish;*
Blob; Bullhead.
Middle and northern States, east of the Dakotas and Nebraska;
Lake Superior to the Ohio and Potomac Rivers.
Pegedictis ictalops Rafinesque, Ichth. Ohiensis, 85, supplement, 1820.
Falls of the Ohio; perhaps confused with *Catnotus flabellaris*.
Cottus richardsoni Agassiz, Lake Superior, 1850, 300, northern shore of
Lake Superior; not *Trachidermis richardsoni* Heckel, also a species
of *Cottus*.
Cottus bairdii Girard, Proc. Amer. Assoc. Adv. Sci., II, 1850, 410,
Mahoning River, Poland, Ohio.
Cottus wilsoni Girard, Monogr. Cottoids, in Smithson. Contrib. to
Knowledge, 1850, 42, Pittsburgh, Pa.
Cottus alvordii Girard, loc. cit., 46, Fort Gratiot, Lake Huron.
Uranidea spilota Cope, Proc. Acad. Nat. Sci. Phila., XVII, 1865, 82,
Grand River at Grand Rapids, Mich.
3019. *Cottus meridionalis* Girard. *Southern miller's thumb; Blob; Mufflejaw*
Cottus meridionalis Girard, Proc. Am. Assn. Adv. Sci., II, 1850, 410,
James River, Va.
Potamocottus carolinæ Gill, Proc. Bost. Soc. Nat. Hist., 1861, 40,
Carolinas.
Potamocottus zopherus Jordan, Ann. Lyc. Nat. Hist. N. Y., XI, 1876,
320, small tributaries of the Etowah and Oostanaula Rivers near
Rome, Ga.

Subgenus URANIDEA DeKay

3020. *Cottus franklini* Agassiz.
Lake Superior and Lake Michigan in deep water.
Cottus franklini Agassiz, Lake Superior, 1850, 303, north and east shores
of Lake Superior.
Uranidea hoyi Putnam, in Nelson, Bull. Ill. Lab. Nat. Hist., I, No. 1,
1876, 41, Lake Michigan, in deep water.
Uranidea kumlieni Hoy, in Nelson, loc. cit., 41, Lake Michigan, in
deep water.
3021. *Cottus gracilis* ⁷⁴ Heckel. *Miller's thumb; Rock cusk; Little stargazer.*
Streams of New England, Maine to New York; recorded from tribu-
taries of the Connecticut, Lake Champlain, Hudson, Delaware, and
Susquehanna.
Cottus gracilis Heckel, Ann. Wien Mus., II, 1837, 148, New York.
Cottus viscosus Haldeman, Suppl. Monogr. Linnaea, 1840, 3, Susquehanna
River.
Uranidea quiescens DeKay, New York Fauna: Fishes, 1842, 61, Lake
Pleasant, Adirondack region.
Cottus gobioides Girard, Proc. Amer. Assoc. Adv. Sci., II, 1850, 411,
Lamville River, Johnson, Vt.
Cottus boleooides Girard, loc. cit., II, 411, Windsor, Vt.

⁷⁴ May not be distinct from the northern *C. cognatus*.

- Cottus copei* Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 326, probably New Jersey.
Cottus gracilis cayuga Meek, Ann. New York Acad. Sci., IV, 1888, 315, Cayuga Lake, N. Y.
3022. *Cottus formosus* Girard.
 Lake Ontario, in deep water.
Cottus formosus Girard, Monogr. Cott., in Smithson. Contrib., III, 1850, 58, Lake Ontario, off Oswego, in stomach of *Lota maculosa*.
 Subgenus TAURIDEA Jordan and Rice.
3023. *Cottus ricei* (Nelson).
 Lake Michigan; Lake Ontario.
Cottopsis ricei Nelson, Bull. Ill. Lab. Nat. Hist., I, 1876, 40, Lake Michigan off Evanston.
Uranidea pollicaris Jordan and Gilbert, Proc. U.S. Nat. Mus., V, 1882, 222, Lake Michigan, off Racine, Wis.
3024. *Cottus onychus* Eigenmann and Eigenmann.
 Saskatchewan Basin.
Cottus onychus Eigenmann and Eigenmann, Am. Nat., XXVI, November, 1892, 963, Bow River at Calgary, a tributary of the South Saskatchewan, Alberta Territory.
3025. *Cottus cognatus* Richardson. *Northern miller's thumb*.
 Northern United States and northward, through Canada.
Cottus cognatus Richardson, Fauna Bor.-Amer., III, 1836, 40, Great Bear Lake.
- Genus 1045. ACANTHOCOTTUS Girard. *Daddy sculpins*.
Acanthocottus Girard, Proc. Bost. Soc. Nat. Hist., III, 1849, 185 (*Cottus granlandicus* Cuvier and Valenciennes).
3026. *Acanthocottus mitchilli* ⁷⁵ (DeKay).
 Coast of southern New England and New York.
Cottus mitchilli DeKay, in Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 188, New York; after *Cottus scorpio* Mitchill.
3027. *Acanthocottus bubalis* (Euphrasen). *Fatherlasher; Lucky proach*.
 Barbados.
Cottus bubalis Euphrasen, Königl. Vet. Nya Abhandl., VII, 1786, 65, taf. 3, fig. 8, 1885, Barbados.
Cottus maculatus Fischer, Jahrb. Wissensch. Aust. Hamburg, II, 1885, 78, taf. 2, fig. 8, Barbados.
3028. *Acanthocottus æneus* (Mitchill). *Grubby; Brassy sculpin; Pigmy sculpin*.
 Coast of southern New England and New York.
Cottus æneus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 380, New York.
Cottus anceps Sauvage, Nouv. Archiv Mus. Paris, I, 1878, 145, pl. 1, fig. 13, New York.
 ?*Cottus nigricans* LeSueur, in Vaillant, Bull. Soc. Philom., serie 8, tome VIII, No. 1, 1895, 12, no locality.
3029. *Acanthocottus octodecemspinosus* (Mitchill). *Long-spined sculpin; Common sculpin; Bullhead; Eighteen-spined sculpin; Hacklehead*.
 Atlantic coast south to Virginia; common northward.
Cottus octodecemspinosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 380, New York.
3030. *Acanthocottus scorpius* (Linnæus). *European sculpin; Ulke*.
 Northern Europe and Arctic regions, not common on our coasts; recorded by Doctor Lütken from the Baltic, Finland, Spitzbergen, Nova Zembla, coasts of England and northern Asia; also recorded from Eastport, Me.
Cottus scorpius Linnæus, Syst. Nat., Ed. X, 1758, 265, in Atlantic Ocean off Europe.
3031. *Acanthocottus scorpioides* (Fabricius). *Arctic sculpin*.
 Arctic regions of America, Greenland to Siberia.
Cottus scorpioides Fabricius, Fauna Grœnl., 1780, 157, Greenland.
Cottus pachypus Günther, Cat., II, 1860, 161, Port Leopold.

⁷⁵ Differentiated by Nichols, Copeia, No. 31, 40, 1916.

- 3032. *Acanthocottus grœnlandicus*** (Cuvier and Valenciennes). *Daddy sculpin*.
New York to Greenland; according to Fabricius it is abundant in all the bays and inlets of Greenland.
Cottus grœnlandicus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 135 (156), no locality given, probably Greenland; after Fabricius.
Cottus porosus Cuvier and Valenciennes, loc. cit., VIII, 1831, 367 (498), Baffins Bay.
Acanthocottus mucosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854 (Oct. 9), 12, coast of New England.
Acanthocottus ocellatus Storer, Boston Jour. Nat. Hist., 1850, 253, Labrador.
Cottus glacialis Richardson, in Belcher, Last Arctic Voy. H. M. S. Assistant, App. 3, 1855, 349, pl. 24, Northumberland Sound.
- Genus 1046. MYOXOCEPHALUS** (Steller) Tilesius.
Myoxocephalus Tilesius, Mém. Acad. Sci. Petersb., IV, 1811, 273 (*Myoxocephalus stelleri* Tilesius).
Boreocottus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166 (*B. axillaris* Gill).
- 3033. *Myoxocephalus polyacanthocephalus*** (Pallas). *Great sculpin*; *Kalog*.
Alaska to Kamchatka; abundant, Bering Sea to Puget Sound; tide pools of Karluk.
Cottus polyacanthocephalus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 133, Aleutian Islands.
- 3034. *Myoxocephalus jaok*** (Cuvier and Valenciennes).
Kamchatka.
Cottus jaok Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 126 (172), Kamchatka.
Cottus humilis Bean, Proc. U. S. Nat. Mus., IV, 1881, 149, Chamisso Island, Bering Straits.
- 3035. *Myoxocephalus verrucosus*** (Bean).
Plover Bay, Siberia, near Bering Straits; Unalaska; Sitka; Bristol Bay; Kings Island; Grantley Harbor, Port Clarence; Litnik.
Cottus verrucosus Bean, Proc. U. S. Nat. Mus., IV, 1881, 152, Plover Bay, Siberia.
- 3036. *Myoxocephalus axillaris*** (Gill).
Bering Straits.
Boreocottus axillaris Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166, Bering Straits.
- 3037. *Myoxocephalus stelleri*** Tilesius.
Western shore of Bering Sea and Okhotsk Sea.
Myoxocephalus stelleri Tilesius, Mém. Acad. Petersb., IV, 1811, 273, with plate, Petropaulski.
Cottus decastrænsis Kner, Denk. Kais. Acad. Wissen., XXIV, 1865, 2, taf. 2, figs. 1, 1a, Decastris Bay, near mouth of the Amur.
? *Cottus marmoratus* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 366 (497), Petropaulski.
- 3038. *Myoxocephalus mednius*** Bean.
Medni Island, Bering Sea.
Myoxocephalus mednius Bean, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1983, Medni Island, Bering Sea.
- 3039. *Myoxocephalus parvulus*** Gilbert and Burke.
Medni Island, Commander Group.
Myoxocephalus parvulus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 59, Preobazenskoi Bar, Medni (Copper) Island.
- 3040. *Myoxocephalus niger*** (Bean). *Black sculpin*.
Pribilof Islands.
Cottus niger Bean, Proc. U. S. Nat. Mus., IV, 1881, 151, St. Paul Island, Bering Sea.
? *Cottus mertensii* Cuvier and Valenciennes, Hist. Nat. Poiss., VIII, 1831, 366 (496), Petropaulski.
- Genus 1047. MEGALOCOTTUS** Gill.
Megalocottus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Cottus platycephalus* Pallas).

3041. *Megalocottus platycephalus* (Pallas).
Kamchatka.
Cottus platycephalus Pallas, Zoogr. Rosso.-Asiat., III, 1811, 135, Kamchatka; after Steller.
Cottus tæniopterus Kner, Sitzungsber. Ak. Wiss. Wien, LXIII, 1868, 28, Taf. 14, fig. 10, Decastris Bay, near mouth of Amur River.
3042. *Megalocottus laticeps* (Gilbert).
Eastern shore of Bering Sea.
Acanthocottus laticeps Gilbert, Rept. U. S. Fish. Com., XIX, 1893, 422, pls. 26 and 27, Nushagak River and Herendeen Bay, Alaska.
- Genus 1048. *POROCOTTUS* Gill.
Porocottus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166 (*P. quadrifilis* Gill).
3043. *Porocottus sellaris* (Gilbert).
Bristol Bay, Alaska.
Acanthocottus sellaris Gilbert, Rept. U. S. Fish. Com. XIX, 1893, 419, Bristol Bay, at Albatross stations 3229, 3231, and others, in 5 to 17 fathoms.
3044. *Porocottus quadratus* Bean.
Bering Island.
Porocottus quadratus Bean, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1998, Bering Island.
3045. *Porocottus polaris* (Sabine).
East side of peninsula of Boothia.
Cottus polaris Sabine, App. Parry's First Voyage, CCXIII, 1824, north Georgia.
3046. *Porocottus quadrifilis* Gill.
Bering Straits.
Porocottus quadrifilis Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 166, Bering Straits.
3047. *Porocottus bradfordi* Rutter.
Alaska; rock pools at Karluk.
Porocottus bradfordi Rutter, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2862, Karluk.
- Genus 1049. *MALACOCOTTUS* Bean.
Malacocottus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 42 (*M. zonurus* Bean).
3048. *Malacocottus zonurus* Bean.
Coast of Alaska off Trinity Islands.
Malacocottus zonurus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 43, off Trinity Islands, Alaska, 56° N., 154° W., at Albatross station 2853, in 159 fathoms.
3049. *Malacocottus kincaidi* Gilbert and Thompson.
Puget Sound.
Malacocottus kincaidi Gilbert and Thompson, Proc. U. S. Nat. Mus., XXVIII, 1905, 979, fig. 2, Brinnon, Hood's Canal, Wash.
- Genus 1050. *ONCOCOTTUS* Gill.
Oncocottus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 13 (*Cottus quadricornis* Linnæus).
3050. *Oncocottus quadricornis* (Linnæus).
Arctic America to Baltic Sea, chiefly northward; abundant in eastern Baltic and in Lakes Ladoga and Onega; north to White Sea and Nova Zembla; rare in England and eastern Greenland; unknown in western Greenland.
Cottus quadricornis Linnæus, Syst. Nat., ed. X, 1758, 264, Baltic Sea.
3051. *Oncocottus hexacornis* (Richardson).
Arctic Sea about Hershel Island.
Cottus hexacornis Richardson, Franklin's Journal, 1823, 726, mouth of Tree River near Coppermine River.
Acanthocottus labradoricus Girard, Bost. Jour. Nat. Hist., VI, 1850, 247, pl. 7, fig. 3, coast of Labrador.

3052. *Oncocottus gilberti* Fowler.
Point Barrow, Alaska; Arctic Sea.
Oncocottus hexacornis gilberti Fowler, Proc. Acad. Nat. Sci. Phila.,
LVII, 1905, 366, figs. 2, 3, 4, and 5, Point Barrow, Alaska.
- Genus 1051. **TRIGLOPSIS** Girard.
Triglopsis Girard, Proc. Bost. Soc. Nat. Hist., IV, 1851, 16 (*T. thompsoni*
Girard).
3053. *Triglopsis thompsoni* Girard. *Lake sculpin*.
Deep waters of Lake Ontario.
Triglopsis thompsoni Girard, Proc. Bost. Soc. Nat. Hist., IV, 1851, 19,
Lake Ontario off Oswego, N. Y.
3054. *Triglopsis stimpsoni* Hoy.
Lake Michigan in deep water.
Triglopsis stimpsoni Hoy, Trans. Wis. Acad. Sci., 1872, 99, Lake Mich-
igan, off Chicago.
3055. *Triglopsis ontariensis* Jordan and Thompson.
Deep waters of Lake Ontario.
Triglopsis ontariensis Jordan and Thompson, Proc. U. S. Nat. Mus.,
XXXVIII, 1911, 75, Lake Ontario, off Toronto.
- Genus 1052. **GYMNOCANTHUS** Swainson.
Gymnocanthus Swainson, Class. Fishes, Amphib., etc., II, 1839, 271
(*Cottus ventralis* Cuvier and Valenciennes=*Cottus pistilliger* Pallas).
Phobctor Krøyer, Naturh. Tidskr., I, 1844, 263 (*Cottus tricuspis* Rein-
hardt).
Elaphocottus Sauvage, Nouv. Arch. Mus. Paris (2), 1, 1878, 142
(*Cottus pistilliger* Pallas).
Gymnacanthus of many authors. Corrected spelling.
3056. *Gymnocanthus pistilliger* (Pallas).
Coasts of Alaska; taken abundantly in Bristol Bay.
Cottus pistilliger Pallas, Zoogr. Rosso-Asiat., III, 1811, 143, Unalaska
Island.
Cottus ventralis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829,
142 (194), Kamchatka.
Cottus cephaloides Gray, in Cuvier and Valenciennes, Hist. Nat. Poiss.,
IV, 1829, 142 (194), Kamchatka.
3057. *Gymnocanthus tricuspis* (Reinhardt).
Arctic seas, south to Norway and Labrador; not very common on our
coasts.
Cottus tricuspis Reinhardt, Vidensk. Selsk. Nat. Math., V, 1832, LII,
Greenland.
Acanthocottus patris Storer, Bost. Jour. Nat. Hist., VI, 1857, 250,
Labrador.
3058. *Gymnocanthus galeatus* (Bean).
Aleutian Islands.
Gymnacanthus guleatus Bean, Proc. U. S. Nat. Mus., IV, 1881, 153,
Unalaska.
- Genus 1053. **CROSSIAS** Jordan and Starks.
Crossias Jordan and Starks, Proc. U. S. Nat. Mus., XXVII, 1904, 296
(*C. allisi* Jordan and Starks).
3059. *Crossias albomaculatus* Schmidt.
Bering Sea.
Crossias albomaculatus Schmidt, Ann. Mus. Zool. Russ., XX, 1923,
614, fig. 2, Bering Sea.
3060. *Crossias beringi* Soldatov.
Bering Sea.
Crossias beringi Soldatov, Ann. Mus. Zool. Russ., XXI, 1924, 218,
Bering Sea.
3061. *Crossias camtschaticus* Schmidt.
Kamchatka.
Crossias camtschaticus Schmidt, Ann. Mus. Zool. Russ., XX, 1923, 17,
Kamchatka.

Genus 1054. LEIOCOTTUS Girard.

Leiocottus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 133 (*L. hirundo* Girard).

3062. *Leiocottus hirundo* Girard.

Coast of southern California, chiefly about the Santa Barbara Islands; extremely local.

Leiocottus hirundo Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 133, San Miguel Island near Santa Barbara, Calif.

Genus 1055. LEPTOCOTTUS Girard.

Leptocottus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 130 (*L. armatus* Girard).

3063. *Leptocottus armatus* Girard. *Smooth cabezon*.

Pacific coast, from Kodiak to San Diego; abundant northward.

Leptocottus armatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 131, Cape Flattery, Fort Steilacoom, Shoalwater Bay, Humboldt Bay, San Francisco, Monterey, San Pedro, Fort Point, San Diego, and Tomales Bay.

Genus 1056. ASEMATICHTHYS Gilbert.

Asematicichthys Gilbert (*Asematicichthys taylora* Gilbert).

3064. *Asematicichthys taylora* Gilbert.

Vancouver Island.

Asematicichthys taylora Gilbert, Departure Bay, Nanaimo, Vancouver Island.

Genus 1057. CLINOCOTTUS Gill.

Clinocottus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Oligocottus analis* Girard).

Rusulus Starks and Mann, Univ. Calif. Pub. Zool., VIII, 1911, 14 (*Clinocottus sabarræ* Starks and Mann; young).

3065. *Clinocottus analis* (Girard).

Coast of California from Point Conception northward.

Oligocottus analis Girard, Proc. Acad. Nat. Sci. Phila., IX, 1857, 201, Monterey.

Cottus criniger Günther, Cat., II, 1860, 522, Monterey, Calif.

Rusulus sabarræ Starks and Mann, Univ. Calif. Pub. Zool., VIII, 1911, 14, Ballast Point, off mouth of San Diego Bay; young.

3066. *Clinocottus australis* Hubbs.

Southern California from Los Angeles County and Santa Catalina Island southward to Todos Santos, San Martin, San Benito, and Guadalupe Islands. Probably varies into *C. analis*, of which it is the southern form.

Clinocottus analis australis Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 171, Feb. 20, 1926, 11, Point Loma, San Diego, Calif.

Genus 1058. OLIGOCOTTUS Girard.

Oligocottus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 132 (*O. maculosus* Girard).

3067. *Oligocottus maculosus* Girard. *Johnny*.

San Francisco to central Alaska.

Oligocottus maculosus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 133, Tomales Bay, San Francisco.

Oligocottus borealis Jordan and Snyder, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 225, Neah Bay, Wash.

Genus 1059. GREELEYA⁷⁶ Jordan.

Eximia Greeley, Bull. U. S. Fish Com., XIX, 1899, 18 (*Eximia rubellio* Greeley); name preoccupied.

Greeleya Jordan, Genera of Fishes, IV, 1920, 493 (*Eximia rubellio* Greeley).

⁷⁶ The separation of this genus from *Oligocottus* has been questioned by Starks and approved by Hubbs.

- 3068. *Greeleya rubellio* (Greeley).**
 Monterey Bay, in deep tide pools.
Eximia rubellio Greeley, Bull. U. S. Fish Com., XIX, 1899, 18, fig. 5,
 Pacific Grove, Calif.
- Genus 1060. *DIALARCHUS* Greeley.**
Dialarchus Greeley, Bull. U. S. Bur. Fish., XIX, 1899, 14 (*Oligocottus*
snyderi Greeley).
- 3069. *Dialarchus snyderi* (Greeley).**
 Coast of California, Crescent City to San Luis Obispo, in tide pools.
Oligocottus snyderi Greeley, in Jordan and Evermann, Fishes North and
 Mid. Amer., 1898, 2871, Pacific Grove, Calif.
- Genus 1061. *SIGMISTES* Rutter.**
Sigmistes Rutter, in Jordan and Evermann, Fishes North and Mid.
 Amer., 1898, 2863 (*S. caulias* Rutter).
- 3070. *Sigmistes caulias* Rutter.**
 Rock pools at Kodiak Island, Alaska.
Sigmistes caulias Rutter, in Jordan and Evermann, Fishes North and
 Mid. Amer., 1898, 2863, rock pools at Karluk, Kodiak Island, Alaska.
- Genus 1062. *OXYCOTTUS* Jordan and Evermann.**
Oxycottus Jordan and Evermann, Fishes North and Mid. Amer., 1898,
 2015 (*Oligocottus acuticeps* Gilbert).
- 3071. *Oxycottus acuticeps* (Gilbert).**
 Alaska south to Cape Flattery, Departure Bay, Vancouver Island,
 Kodiak.
Oligocottus acuticeps Gilbert, Rept. U. S. Fish Com., XIX, 1893, 432,
 Unalaska.
- Genus 1063. *ALLOCOTTUS* Hubbs.**
Allocottus Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 171, 1926,
 14 (*Oligocottus embryum* Jordan and Starks).
- 3072. *Allocottus embryum* (Jordan and Starks).**
 Washington (Neah Bay), Point Lobos, Calif., Karluk and Sitka,
 Alaska.
Oligocottus embryum Jordan and Starks, Proc. Calif. Acad. Sci., 2d
 ser., V, 1895, 808, pl. 82, Neah Bay, Wash.
- Genus 1064. *RUSCICULUS* Greeley.**
Rusciculus Greeley, Bull. U. S. Fish Com., XIX, 1899, 13 (*R. rimensis*
 Greeley).
- 3073. *Rusciculus rimensis* Greeley.**
 Monterey Bay in tide pools.
Rusciculus rimensis Greeley, Bull. U. S. Fish Com., XIX, 1899, 13,
 fig. 3, Point Lobos, near Carmel, Calif.
- Genus 1065. *BLENNICOTTUS* Gill.**
Blennicottus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 166 (*Oligo-*
cottus globiceps Girard).
- 3074. *Blennicottus globiceps* (Girard).**
 Pacific coast from Coronado Islands northward to Cape Mendocino.
Oligocottus globiceps Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858,
 58, South Farallons.
Blennicottus globiceps bryosus Jordan and Starks, Proc. Calif. Acad.
 Sci., 2d ser., V, 1895, 808, Neah Bay, Wash.
- Genus 1066. *MONTEREYA* Hubbs.**
Montereya Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 171,
 1926, 16 (*Blennicottus recalvus* Greeley).
- 3075. *Montereya recalva* (Greeley).**
 Monterey Bay to San Diego, in tide pools.
Blennicottus recalvus Greeley, Bull. U. S. Fish Com., XIX, 1899
 (Dec. 13), 9, fig. 1, Pacific Grove, Calif.
- Genus 1067. *ORTHONOPIAS* Starks and Mann.**
Orthonopias Starks and Mann, Univ. Cal. Publ. Zool., VIII, 1911, 11,
 (*O. triacis* Starks and Mann).

3076. *Orthonopias triacis* Starks and Mann.
Coast of California, Monterey to San Diego.
Orthonopias triacis Starks and Mann, Univ. Cal. Publ. Zool., VIII, 1911, 11, fig. 1, Cortez Banks off San Diego.
- Genus 1068. *DASYCOTTUS* Bean.
Dasycottus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 42 (*D. setiger* Bean).
3077. *Dasycottus setiger* Bean.
Puget Sound to Bering Sea.
Dasycottus setiger Bean, Proc. U. S. Nat. Mus., XIII, 1890, 42, off Sitkalidak Island, Alaska.
- Genus 1069. *ZESTICELUS* Jordan and Evermann.
Zesticelus Jordan and Evermann, Check List, 1895, 443 (*Acanthocottus profundorum* Gilbert).
3078. *Zesticelus profundorum* (Gilbert).
Bering Sea, north of Unalaska.
Acanthocottus profundorum Gilbert, Rept. U. S. Fish Com., XIX, 1893, 423, pl. 27, upper fig., Bering Sea, north of Unalaska, at Albatross station 3328, in 399 fathoms.
- Genus 1070. *THECOPTERUS* Smith.
Thecopterus Smith (H. M.), Proc. Biol. Soc. Wash., XVII, 1904, 163 (*Thecopterus aleuticus* Smith).
3079. *Thecopterus aleuticus* Smith.
Bering Sea.
Thecopterus aleuticus Smith, Proc. Biol. Soc. Wash., XVII, 1904, 163, near Rat Islands, in 270 fathoms.
- Genus 1071. *COTTUNCULUS* Collett.
Cottunculus Collett, Norges Fiske, 1875, 20 (*C. microps* Collett).
3080. *Cottunculus microps* Collett.
Deep waters off coasts of Norway and Rhode Island.
Cottunculus microps Collett, Norges Fiske, 1875, 20, pl. I, figs. 1-3, Hasvig near Hammerfest, Norway, in 200 fathoms.
3081. *Cottunculus thomsonii* (Günther).
North Atlantic, in deep water.
Cottus thomsonii Günther, Proc. Royal Soc. Edinburgh, XI, 1882, 679, Faroe Channel, in 535 fathoms.
Cottunculus torvus Goode, Proc. U. S. Nat. Mus., III, 1880, 479, Gulf Stream off Rhode Island. *A nomen nudum*.
- Genus 1072. *ASCELICHTHYS* Jordan and Gilbert.
Ascelichthys Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 264 (*A. rhodorus* Jordan and Gilbert).
3082. *Ascelichthys rhodorus* Jordan and Gilbert.
Pacific coast from Sitka to Cape Mendocino; abundant in Neah Bay, Wash.
Ascelichthys rhodorus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 264, Waadda Island, Neah Bay, near Cape Flattery.
- Genus 1073. *PSYCHROLUTES* Günther.
Psychrolutes Günther, Cat., III, 1861, 516 (*P. paradoxus* Günther).
3083. *Psychrolutes paradoxus* Günther.
Puget Sound to Kodiak Island.
Psychrolutes paradoxus Günther, Cat., III, 1861, 516, Gulf of Georgia.
Psychrolutes zebra Bean, Proc. U. S. Nat. Mus., XIII, 1890, 43, Aleutian Islands, between Unga and Nagai Islands, in 110 fathoms.
- Genus 1074. *GILBERTIDIA* Berg.
Gilbertina Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 811 (*Gilbertina sigalutes* Jordan and Starks); name preoccupied.
Gilbertidia Berg, Comun. del Museo Nac. de Buenos Aires, I, 1898, 42 (*Gilbertina sigalutes* Jordan and Starks).

3084. *Gilbertidia sigalutes* (Jordan and Starks).

Puget Sound.

Gilbertidia sigalutes Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 811, pl. 86, Port Orchard, near Seattle.**Family 237. SYNCHIRIDÆ****Genus 1075. SYNCHIRUS Bean.***Synchirus* Bean, Proc. U. S. Nat. Mus., XII, 1889, 641 (*S. gilli* Bean).**3085. *Synchirus gilli* Bean.**

Puget Sound; Barclay Sound, Port Townsend; rare.

Synchirus gilli Bean, Proc. U. S. Nat. Mus., XII, 1889, 642, Barclay Sound, British Columbia.**Family 238. RHAMPHOCOTTIDÆ****Genus 1076. RHAMPHOCOTTUS Günther.***Rhamphocottus* Günther, Ann. Mag. Nat. Hist., Series 4, XIV, 1874, 369 (*R. richardsoni* Günther).**3086. *Rhamphocottus richardsoni* Günther.**

North Pacific, Alaska to Monterey; not infrequent in Puget Sound.

Rhamphocottus richardsoni Günther, Ann. Mag. Nat. Hist., XIV, 1874, 369, Fort Rupert, British America.**Genus 1077. ULCA Jordan and Evermann.***Ulca* Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 227 (*Hemitripteris marmoratus* Bean).**3087. *Ulca marmorata* (Bean).**

Alaska, Bering Sea and off Sitkalidak Island.

Hemitripteris marmoratus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 43, off Sitkalidak Island.**Family 239. HEMITRIPTERIDÆ. Sea ravens****Genus 1078. HEMITRIPTERUS Cuvier.***Hemitripteris* Cuvier, Règne Anim., ed. 2, II, 1829, 164 (*Scorpena americanus* Gmelin).**3088. *Hemitripteris americanus* (Gmelin). Sea raven; Yellow sculpin.**

Atlantic coast of America from Tortugas to Labrador, chiefly northward.

Scorpena americana Gmelin, Syst. Nat., ed. XIV, 1788, 1220, after

"Diable en Crapand de l'Amérique" of Duhamel de Moreau.

Cottus acadian Walbaum, Artedi Pisc., 1792, 392, 1784, Nova Scotia; after Pennant.*Cottus hispidus* Bloch and Schneider, Syst. Ichth., 1801, 63, New York.*Cottus tripterygius* Bloch and Schneider, Syst. Ichth., 1801, 63, Nova Scotia; after Pennant.**3089. *Hemitripteris villosus* (Pallas).**

Coast of Alaska.

Cottus villosus Pallas, Zoogr. Rosso-Asiat., III, 1811, 129, Cape Kronok, Kamchatka, Itscha River.*Hemitripteris cavifrons* Lockington, Proc. Acad. Nat. Sci. Phila., XXXII, 1880, 233, Kodiak Island, Alaska.**Family 240. AGONIDÆ. Sea poachers; Alligatorfishes****Genus 1079. HYPASAGONUS Gill.***Hypsagonus* Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 167 (*Aspidophorus quadricornis* Cuvier and Valenciennes).*Cheiragonus* Herzenstein, Bull. Acad. Sci. St. Petersb., XIII, 1890, 116 (*Hypsagonus gradiens* Herzenstein = *Aspidophorus quadricornis* Cuvier and Valenciennes).**3090. *Hypsagonus quadricornis* (Cuvier and Valenciennes).**

North Pacific; Kamchatka; Bering Sea and coasts of Alaska south to Bristol Bay and Puget Sound.

Aspidophorus quadricornis Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 162 (221), Kamchatka.*Hypsagonus gradiens* Herzenstein, Bull. Acad. Int. Sci. St. Petersb., XIII, 1890, 116, Kamchatka, Sinus Awatcha Bay, Petropaulski.

Genus 1080. STELLERINA Cramer.

Stellerina Cramer, in Jordan and Evermann, Check List, 1895, 447
(*Brachyopsis xyosternus* Jordan and Gilbert).

3091. *Stellerina xyosterna* (Jordan and Gilbert).

Coast of California and Oregon.

Brachyopsis xyosternus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, July 2, 1880, 152, Santa Cruz, Calif.

Agonus annæ Steindachner, Ichth. Beitr., IX, 1880, 254, pl. 6, figs. 1, 1a, Sitzb. K. Acad. Wiss., LXXXII, San Francisco, Calif.

Genus 1081. OCCA Jordan and Evermann.

Occa Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2043
(*Brachyopsis verrucosus* Lockington).

3092. *Occa verrucosa* (Lockington).

Coast of California, south to San Francisco.

Brachyopsis verrucosus Lockington, Proc. U. S. Nat. Mus., III, May 6, 1880, 60, Drake Bay, near San Francisco.

Agonus barkani Steindachner, Ichth. Beitr., IX, 1880, 253, pl. 5, Sitzb. K. Akad. Wiss., LXXXII, San Francisco, Calif.

Genus 1082. OCCELLA Jordan and Hubbs.

Occella Jordan and Hubbs, Mem. Carnegie Mus., X, No. 2, 1925, 291
(*Agonus dodecaëdron* Tilesius).

3093. *Occella dodecaëdron* (Tilesius).

North Pacific, Kamchatka, Bristol Bay, coast of Alaska.

Agonus dodecaëdrus Tilesius, Mém. Acad. Petersb., IV, 1810, pl. 13, Kamchatka.

Phalangistes loricatus Pallas, Zoog. Rosso-Asiat., III, 1811, 114, tab. 19, Kamchatka.

Genus 1083. PALLASINA Cramer.

Pallasina Cramer, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 815 (*Siphogonus barbata* Steindachner).

3094. *Pallasina barbata* (Steindachner).

Bering Sea on both coasts to Hokkaido, northern Japan.

Siphogonus barbatus Steindachner, Ichth. Beitr., V, July, 1876, 140, pl. 5, Sitzb. der K. Akad. Wiss., LXXIV, Hakodate, Japan; the locality of Nagasaki also mentioned is impossible.

3095. *Pallasina aix* Starks.

Puget Sound to the Aleutian Islands.

Pallasina aix Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 558, pl. 75, Puget Sound near Port Ludlow, Wash.

Genus 1084. LEPTAGONUS Gill.

Leptagonus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 167, 259
(*Aspidophorus spinosissimus* Krøyer = *Aspidophorus decagonus* Cuvier and Valenciennes).

3096. *Leptagonus decagonus* (Bloch and Schneider).

Arctic Ocean, south to Newfoundland and Norway.

Agonus decagonus Bloch and Schneider, Syst. Ichth., I, 1801, 105, pl. 27, erroneously recorded from the East Indies; the type from Greenland.

Aspidophorus spinosissimus Krøyer, Naturhist. Tidskr., I, 1844, 250, Greenland.

Genus 1085. PODOTHECUS Gill.

Podothecus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 77, 259 (*P. peristethus* Gill = *Agonus acipenserinus* Tilesius).

Paragonus Gill, loc. cit., 167, 259 (*Agonus acipenserinus* Tilesius).

3097. *Podothecus acipenserinus* (Tilesius). Common alligatorfish.

Kamchatka to Puget Sound.

Agonus acipenserinus Tilesius, Mém. Acad. Petersb., IV, 1811, 422, pl. 11, fig. 163, Unalaska.

Podothecus peristethus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 259, Simeahmoo, Washington Territory.

3098. *Podotheucus gilberti* Collett.

Kamchatka.

Podotheucus gilberti Collett, Proc. Zool. Soc. London, 1894, 67, pl. 45, Kamchatka.Genus 1086. **AGONUS** Bloch and Schneider.*Agonus* Bloch and Schneider, Syst. Ichth., 1801, 104 (*Cottus cataphractus* Linnæus).*Aspidophorus* Lacépède, Hist. Nat. Poiss., III, 1802, 221 (*A. armatus* Lacépède = *Cottus cataphractus* Linnæus).*Phalangistes* Pallas, Zoog. Rosso-Asiat., III, 1811, 113 (*Cottus cataphractus* L.).3099. *Agonus cataphractus* (Linnæus). *Sea poacher*; Pogge.

Northern Europe to western Greenland.

Cottus cataphractus Linnæus, Syst. Nat., Ed. X, 1758, 264; after Artedi.*Cottus brodamus* Bonnaterre, Encycl. Meth., 1788, 67, northern seas. *Aspidophorus armatus* Lacépède, Hist. Nat. Poiss., III, 1802, 222 Atlantic Ocean.*Cataphractus schoneveldii* Fleming, British Animals, 1842, 216, Great Britain.*Aspidophorus europæus* Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 147 (201), sandy shores of northern Europe.Genus 1087. **STELGIS** Cramer.*Stelgis* Cramer, in Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 821 (*Agonus vulsus* Jordan and Gilbert).3100. *Stelgis vulsus* (Jordan and Gilbert).

Off San Francisco.

Agonus vulsus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 330, Point Reyes, near San Francisco.Genus 1088. **AVERRUNCUS** Jordan and Starks.*Averruncus* Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 821, 824 (*A. emmelane* Jordan and Starks).3101. *Averruncus emmelane* Jordan and Starks.

Puget Sound, near Port Orchard.

Averruncus emmelane Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 821, pl. 91, Port Orchard, Puget Sound.3102. *Averruncus sterletus* Gilbert.

Coast of southern California.

Averruncus sterletus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2072, off Coronado Island.Genus 1089. **XYSTES** Jordan and Starks.*Xystes* Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 824 (*X. axinophrys* Jordan and Starks).3103. *Xystes axinophrys* Jordan and Starks.

Puget Sound to Monterey.

Xystes axinophrys Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 824, pl. 92, Port Orchard, Admiralty Inlet.Genus 1090. **SARRITOR** Cramer.*Sarritor* Cramer, in Jordan and Evermann, Check List, 1895, 448, and Fishes of North and Mid. Amer., 1898, 2072 (*Odontopyxis frenatus* Gilbert).3104. *Sarritor frenatus* (Gilbert).

Coast of Alaska.

Odontopyxis frenatus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 435, pl. 30, fig. 3. Alaska and Aleutian Islands, at Albatross stations 3219, 3225 and many others, in 16 to 351 fathoms.3105. *Sarritor leptorhynchus* (Gilbert).

Coast of Alaska.

Odontopyxis leptorhynchus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 437, north and south of the Alaska peninsula, at Albatross stations 3215, 3219, and others in 32 to 59 fathoms.Genus 1091. **BATHYAGONUS** Gilbert.*Bathyagonus* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 89 (*B. nigripinnis* Gilbert).

3106. *Bathyagonus nigripinnis* Gilbert.
North Pacific; known from the Aleutian Islands, Bering Sea, south to the coast of Washington.
Bathyagonus nigripinnis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 89, coast of Washington, at *Albatross* station 3073, in 477 fathoms.
- Genus 1092. *XENERETMUS* Gilbert.
Xenochirus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 90 (*X. triacanthus* Gilbert); name preoccupied.
Xeneretmus Gilbert in Jordan, Amer. Nat., 1903, 360 (*Xenochirus triacanthus* Gilbert).
3107. *Xeneretmus triacanthus* (Gilbert).
Pacific coast, from Santa Barbara to Washington.
Xenochirus triacanthus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 91, off coast of California, Oregon, and Washington, at *Albatross* stations 2893, 2973, and 3059, in 145, 68, and 77 fathoms.
- Genus 1093. *ASTEROTHECA* Gilbert.
Asterotheca Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 343 (*Xenochirus pentacanthus* Gilbert).
3108. *Asterotheca pentacantha* (Gilbert).
Coast of Washington.
Xenochirus pentacanthus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 91, coast of Washington, at *Albatross* station 3076, in 178 fathoms.
3109. *Asterotheca alascana* (Gilbert).
Puget Sound to Bering Sea; coast of Washington.
Xenochirus alascanus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 438, Unimak Pass, Aleutian Islands, at *Albatross* stations 3216, 3219, and others, in 35 to 138 fathoms.
3110. *Asterotheca infraspinata* (Gilbert).
Off coast of Washington.
Xeneretmus infraspinatus Gilbert, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 262, pl. 27, off Cape Flattery, Wash., in 77 fathoms.
- Genus 1094. *XENOPYXIS* Gilbert.
Xenopyxis Gilbert, Proc. U. S. Nat. Mus., XLIII, 1915, 345 (*Xeneretmus latifrons* Gilbert).
3111. *Xenopyxis latifrons* (Gilbert).
North Pacific coast from Oregon to San Diego.
Xenochirus latifrons Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 92, off coast of Oregon and San Diego, at *Albatross* stations 2898, 2935, etc., in 61 and 158 fathoms.
3112. *Xenopyxis leiops* (Gilbert).
Off southern California.
Xeneretmus leiops Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 348, pl. 17, fig. 10, off Santa Catalina Island.
3113. *Xenopyxis ritteri* (Gilbert).
Off San Diego, Calif.
Xeneretmus ritteri Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 350, pl. 17, fig. 11, off San Diego, in 176 to 181 fathoms.
- Genus 1095. *ODONTOPYXIS* Lockington.
Odontopyxis Lockington, Proc. U. S. Nat. Mus., II, 1879, 328 (*O. trispinosus* Lockington).
3114. *Odontopyxis trispinosus* Lockington.
Pacific coast, Alaska to Santa Barbara.
Odontopyxis trispinosus Lockington, Proc. U. S. Nat. Mus., II, 1879, 328, San Francisco.
- Genus 1096. *BOTHRAGONUS* Gill.
Bothragonus Gill, in Jordan and Gilbert, Synopsis, 1883, 728 (*Hypsagonus swanii* Steindachner).
3115. *Bothragonus swanii* (Steindachner).
Puget Sound.
Hypsagonus swanii Steindachner, Ichth. Beitr., V, July, 1876, 144, pl. 4, Sitzb. Akad. Wiss. Wien, LXXIV, Port Townsend, Wash.

Family 241. ASPIDOPHOROIDIDÆ

Genus 1097. *ULCINA* Cramer.

Ulcina Cramer, in Jordan and Evermann, Check List, 1895, 449, 1896
(*Aspidophoroides olriki* Lütken).

3116. *Ulcina olriki* (Lütken).

Arctic Ocean; known from west coast of Greenland, Davis Strait, Kara Sea, Barents Bay, and Nova Zembla.

Aspidophoroides olriki Lütken, Forelob. Meddel. om Nord Ulkefische Vidensk. Meddel. Naturhist. Foren. Kjøb., 1876, 386, 3 figs., Greenland.

3117. *Ulcina güntheri* (Bean).

Coast of Alaska.

Aspidophoroides güntheri Bean, Proc. U. S. Nat. Mus., VIII, 1885, 74, Alaska.

Genus 1098. ASPIDOPHOROIDES Lacépède.

Aspidophoroides Lacépède, Hist. Nat. Poiss., III, 1802, 228 (*A. tranquebar* Lacépède = *Cottus monopterygius* Bloch).

Canthirhynchus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 272 (*A. monopterygius* Bloch).

3118. *Aspidophoroides monopterygius* (Bloch). *Sea poacher*.

Greenland to Cape Cod; accidental to New York.

Cottus monopterygius Bloch, Ichth., II, 1786, 156, pl. 178, figs. 1, 2, Tranquebar; an error.

Cottus indicus Bonnaterre, Tableau Encycl. Meth., 1788, 68, pl. 87, fig. 367, India; after Bloch.

Aspidophoroides tranquebar Lacépède, Hist. Nat. Poiss., III, 1802, 228, Tranquebar.

Aspidophoroides grænländicus Valenciennes, in Cuvier, Règne Anim., ed. 2, II, 1829, pl. 21, fig. 3, Greenland.

3119. *Aspidophoroides bartoni* Gilbert.

Aleutian Islands.

Aspidophoroides bartoni Gilbert, Rept. U. S. Fish Com., XIX, 1893, 434, Aleutian Islands and Bristol Bay, Alaska, at Albatross stations 3213, 3223, and many others, in 11½ to 121 fathoms.

Genus 1099. ANOPLAGONUS Gill.

Anoplagonus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 259 (*Aspidophoroides inermis* Günther).

3120. *Anoplagonus inermis* (Günther).

Coasts of Alaska, south to Vancouver Island.

Aspidophoroides inermis Günther, Cat., II, 1860, 524, Vancouver Island.

Family 242. CYCLOPTERIDÆ

Genus 1100. CYCLOPTERUS Linnæus.

Cyclopterus Linnæus, Syst. Nat., Ed. X, 1758, 260 (*C. lumpus* Linnæus).

Lumpus Oken, Isis, 1817, 1782; based on "les Lumps" Cuvier (*Cyclopterus lumpus* Linnæus).

3121. *Cyclopterus lumpus* Linnæus. *Lumpfish*; *Cock and hen paddle*; *Sea owl*; *Paddle*; *Licorne de mer*; *Lumpsucker*.

North Atlantic; rocky shores of both coasts, south to Cape Cod and France.

Cyclopterus lumpus Linnæus, Syst. Nat., Ed. X, 1758, 260, Baltic and North Sea.

Cyclopterus minutus Pallas, Spicilegia, Zool., VII, 1769, 12, Atlantic Ocean.

Cyclopterus pavoninus Shaw, Nat. Hist., IX, 1797, pl. 310.

Cyclopterus pyramidatus Shaw, Gen. Zool., V, 1804, 390.

Cyclopterus ceruleus Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 480, New York Harbor.

Cyclopterus coronatus Couch, Nat. Hist. Cornwall, in Trans. Linn. Soc. London, XIV, 1823, 47, Cornwall.

Lumpus vulgaris McMurtrie, Eng. ed. Cuvier, Anim. King., 1831; after *C. lumpus* Linnæus.

Lumpus anglorum DeKay, N. Y. Fauna: Fishes, IV, 1842, 305, after Linnæus.

Genus 1101. EUMICROTREMUS Gill.

Eumicrotremus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 190 (*Cyclopterus spinosus* Müller).

3122. Eumicrotremus spinosus (Müller). Spinous lumpfish.

North Atlantic and Arctic Oceans, south to Maine and Denmark; and Eastport, Me.

Cyclopterus spinosus Müller, Prodr. Zool. Dan., IX, 1777, Denmark.

3123. Eumicrotremus orbis (Günther).

Aleutian Islands, south to Vancouver Island.

Cyclopterus orbis Günther, Cat., III, 1861, 158, Vancouver Island.

3124. Eumicrotremus phrynoides Burke.

Bering Sea.

Eumicrotremus phrynoides Burke, Bull. U. S. Bur. Fish., XXX, 1910, 69, Petrel Bank, Alaska.

Genus 1102. LETHOTREMUS Gilbert.

Lethotremus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 449 (*L. muticus* Gilbert).

3125. Lethotremus muticus Gilbert.

Aleutian Islands.

Lethotremus muticus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 449, pl. 31, Unimak Pass, Alaska, at Albatross stations 3223 and 3258, in 56 to 70 fathoms.

3126. Lethotremus vinolentus Jordan and Starks.

Puget Sound, Wash.

Lethotremus vinolentus Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 827, pl. 94, Puget Sound, near Seattle, Wash.

Genus 1103. CYCLOPTEROIDES Garman.

Cyclopteroides Garman, Mem. Mus. Comp. Zool., XIV, 1892, 37 (*C. gyrinops* Garman).

3127. Cyclopteroides gyrinops Garman.

Pribilof Islands, Alaska.

Cyclopteroides gyrinops Garman, Mem. Mus. Comp. Zool., XIV, 1892, 37, St. Paul Island.

Family 243. LIPAROPIDÆ

Genus 1104. APTOCYCLUS De la Pylaie.

Aptocyclus De la Pylaie, Congrès Scientifique Potiers, 1834, 529 (*Cyclopterus ventricosus* Pallas; misprinted *Cyclogasterus*).

Cycloptericthys Steindachner, Ichth. Beitr., X, 1881, 14, 192 (*C. glaber* Steindachner = *Cyclopterus ventricosus* Pallas).

3128. Aptocyclus ventricosus (Pallas).

Kamchatka; Sea of Okhotsk.

Cyclopterus ventricosus Pallas, Spicilegia Zool., VII, 1770, 15, t. 2, no locality given, somewhere about Kamchatka.

Cycloptericthys glaber Steindachner, Ichth. Beitr., X, 1881, 14, pl. 8, Sea of Okhotsk.

Genus 1105. LIPAROPS Garman.

Liparops Garman, Mem. Mus. Comp. Zool., XV, 1892, 42 (*Cyclopterus stelleri* Pallas).

3129. Liparops stelleri (Pallas).

Peter and Paul Harbor, Kamchatka.

Cyclopterus stelleri Pallas, Zoogr. Rosso-Asiatica, III, 1811, 73, Peter and Paul Harbor, Kamchatka.

Family 244. LIPARIDÆ. Sea snails

Genus 1106. POLYPERA Burke.

Polypera Burke, Proc. U. S. Nat. Mus., XLIII, 1913, 567 (*Liparis greeni* Jordan and Starks).

3130. *Polypera greeni* (Jordan and Starks).

Puget Sound at Victoria, British Columbia.

Neoliparis greeni Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 829, pl. 96, figs. 2 and 3, Victoria, British Columbia.

Genus 1107. NEOLIPARIS Steindachner.

Neoliparis Steindachner, Ichth. Beitr., III, 1875, 54 (*Liparis mucosus* Ayres).

3131. *Neoliparis atlanticus* Jordan and Evermann. *Sea snail; Lump sucker.*
Common along rocky shores from Newfoundland to Cape Cod.

Neoliparis atlanticus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2107, Godbout, Quebec.

Liparis montagui of authors, not of Donovan, the European cognate.

3132. *Neoliparis mucosus* (Ayres).

Pacific coast from Puget Sound to San Francisco; rare.

Liparis mucosus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 22, San Francisco.

Neoliparis floræ Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 830, pl. 96, fig. 1, Waadda Island, Straits of Juan de Fuca.

3133. *Neoliparis fissuratus* Starks.

Puget Sound.

Neoliparis fissuratus Starks, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 560, Port Ludlow, Puget Sound.

3134. *Neoliparis rutteri* Gilbert and Snyder.

Kodiak Island, Alaska.

Neoliparis rutteri Gilbert and Snyder, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2108, Ugah Bay, Kodiak Island.

3135. *Neoliparis bristolensis* (Burke).

Bristol Bay, Bering Sea.

Cyclogaster bristolensis Burke, Proc. U. S. Nat. Mus., XLIII, 1913, 567, Bristol Bay in about 20 fathoms.

3136. *Neoliparis callyodon* (Pallas).

Coasts of Alaska, north to Kamchatka and Bering Sea; recorded from St. Paul, Kamchatka, Plover Bay, Siberia, Unalaska, and Kodiak.

Cyclopterus callyodon Pallas, Zoogr. Rosso-Asiat., III, 1811, 75, Kamchatka and Aleutian Islands.

3137. *Neoliparis grebnitzkii* Schmidt.

Commander Islands.

Neoliparis grebnitzkii Schmidt, Fauna Mare Orientale, 1875, 61, Bering Island.

3138. *Neoliparis beringianus* (Gilbert and Burke).

Bering Island.

Cyclogaster (Neoliparis) beringianus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 72; Nikolski, Bering Island.

3139. *Neoliparis micraspidophorus* (Burke).

Bering Island.

Cyclogaster (Neoliparis) micraspidophorus Burke, Bull. U. S. Bur. Fish., XXX, 1910, 71, Nikolski, Bering Island.

Genus 1108. LIPARIS Scopoli.

Cyclogaster ⁷⁷ Gronow, Act. Helvet., IV, 1760, 265 (*Cyclopterus liparis* Linnæus); nonbinomial.

Cyclogaster Gronow, Zoophyl., No. 198, 1763; nonbinomial.

Liparis (Artesi) Scopoli, Introd. Hist. Nat., 1777, 453 (*Cyclopterus liparis* Linnæus).

Cyclogaster Gronow, Cat. Fishes, ed. Gray, 1854, 40 (*Cyclopterus liparis* L.).

⁷⁷ We do not find that Gronow used the name *Cyclogaster* as binomial. Although later than Linnæus (1758), he had not then adopted, most likely had not heard of, the Linnæan system.

- 3140. *Liparis liparis* (Linnæus).** *Sea snail; Striped sea snail.*
 North Atlantic, on both shores, south to Connecticut and France, common north; very variable, a dozen color varieties having received names.
Cyclopterus liparis Linnæus, Syst. Nat., Ed. XII, I, 1766, 414, northern ocean; after Artedi and Gronow.
Cyclopterus lineatus Lepechin, Nov. Comm. Petropol., XVIII, 1774, 520, White Sea.
Cyclopterus liparis minor Fabricius, Fauna Grœnlandica, 1780, 135, Greenland.
Cyclopterus musculus Lacépède, Hist. Nat. Poiss., IV, 1802, 683, near Havre.
- 3141. *Liparis osborni* Townsend and Nichols.**
 Off southern California in 440 fathoms.
Liparis osborni Townsend and Nichols, Bull. Amer. Mus. Nat. Hist., LII, 1925, 14, fig. 4, off southern California.
- 3142. *Liparis cyclopus* Günther.**
 Aleutian Islands to Puget Sound.
Liparis cyclopus Günther, Cat., III, 1861, 162, Esquimault Harbor, Vancouver Island.
- 3143. *Liparis megacephalus* (Burkè).**
 Southeastern Bering Sea.
Cyclogaster megacephalus Burke, Proc. U. S. Nat. Mus., XLIII, 1913, 569, southeastern Bering Sea at 37 fathoms.
- 3144. *Liparis fucensis* Gilbert.**
 Straits of Fuca.
Liparis fucensis Gilbert, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 837, and Rept. U. S. Fish Com., XIX, 1893, 447, Port Angeles, Straits of Juan de Fuca.
- Genus 1109. CARELIPARIS Garman.**
Careliparis Garman, Mem. Mus. Comp. Zool., XIV, 1892, 62 (*Liparis agassizii* Putnam).
- 3145. *Careliparis tunicatus* (Reinhardt).**
 Greenland.
Liparis tunicata Reinhardt, Overs. Kong. Danske Vidensk. Selsk., VI, CXI, 1836, Greenland; after Fabricius.
Liparis fabricii Krøyer, Naturh. Tidsskr., II, 1847, 274, Greenland; D. XIII, 27; A. II, 30; P. 34; C. 9; Vert. 46.
Liparis arctica Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 191, Port Foulke, Greenland.
- 3146. *Careliparis agassizii* (Putnam).**
 Bering Sea; Sakhalin Island.
Liparis agassizii Putnam, Proc. Amer. Assoc. Adv. Sci., 1874, 339, Sakhalin Channel of Tartary.
Liparis gibbus Bean, Proc. U. S. Nat. Mus., IV, 1881, 148, Unalaska, St. Paul Island, Indian Point, Cape Chaplin, and Plover Bay, Siberia.
- 3147. *Careliparis herschelini* (Scofield).**
 Arctic Ocean.
Liparis herschelini Scofield, in Jordan and Evermann, Fishes North and Mid Amer., 1898, 2123, Herschel Island, Arctic Ocean, near mouth of the Mackenzie.
- 3148. *Careliparis dennyi* (Jordan and Starks).**
 North Pacific, from Aleutian Islands to Puget Sound.
Liparis dennyi Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 835, pl. 98, Admiralty Inlet near Seattle.
- Genus 1110. LYOLIPARIS Jordan and Evermann.**
Lyoliparis Jordan and Evermann, Check List, 1895, 451 (*Liparis pulchellus* Ayres).
- 3149. *Lyoliparis pulchellus* (Ayres).**
 Point Reyes, Calif.; northern Pacific, Alaska to Monterey.
Liparis pulchellus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 22, San Francisco.

Genus 1111. ACTINOCHIR Gill.

Actinochir Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 190, 193 (*A. major* Gill).

3150. Actinochir major Gill.

Coasts of Greenland.

Actinochir major Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 193, Greenland.

Cyclopterus liparis major Fabricius, Fauna Grœnland., 1780, 136, Greenland; *major* is here simply an adjective.

Genus 1112. CRYSTALLICHTHYS Jordan and Gilbert.

Crystallichthys Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2834 (*C. mirabilis* Jordan and Gilbert).

3151. Crystallichthys mirabilis Jordan and Gilbert.

Bering Sea.

Crystallichthys mirabilis Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2865, Provostmaya, Kamchatka.

3152. Crystallichthys cyclospilus Gilbert and Burke.

Bering Sea, Petrel Bank, St. Paul Island.

Crystallichthys cyclospilus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 74, Petrel Bank.

3153. Crystallichthys cyclostigma (Gilbert).

Bristol Bay, Alaska.

Liparis cyclostigma Gilbert, Rept. U. S. Fish Com., XIX, 1893, 446, Bristol Bay, Alaska, at *Albatross* station 3252, in 29½ fathoms.

Genus 1113. BATHYPHASMA Gilbert.

Bathyphasma Gilbert, Rept. U. S. Fish Com., XIX, 1893, 447 (*B. ovigerum* Gilbert).

3154. Bathyphasma ovigerum Gilbert.

Off Queen Charlotte Island, British Columbia.

Bathyphasma ovigerum Gilbert, Rept. U. S. Fish Com., XIX, 1893, 448, Queen Charlotte Islands, at *Albatross* station 3342 in 1,588 fathoms.

Genus 1114. CAREMITRA Jordan and Evermann.

Caremitra Jordan and Evermann, Check List, 1895, 452 (*Careproctus simus* Gilbert).

3155. Caremitra sima (Gilbert).

Off Unalaska Island.

Careproctus simus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 444, off Unalaska, at *Albatross* station 3331 in 350 fathoms.

Genus 1115. LIPARISCUS Gilbert.

Lipariscus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 358 (*L. nanus* Gilbert).

3156. Lipariscus nanus Gilbert.

Monterey Bay, Calif.

Lipariscus nanus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 358, pl. 19, Monterey Bay in 32 to 309 fathoms.

Genus 1116. EURYMEN Gilbert and Burke.

Eurymen Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 64 (*E. gyrinus* Gilbert and Burke).

3157. Eurymen gyrinus Gilbert and Burke

Bering Sea.

Eurymen gyrinus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 64, Avatcha Bay, east coast of Kamchatka.

Genus 1117. ACANTHOLIPARIS Gilbert and Burke.

Acantholiparis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 83 (*A. opercularis* Gilbert and Burke).

3158. Acantholiparis opercularis Gilbert and Burke.

East coast of Kamchatka.

Acantholiparis opercularis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 83, Starichkof Island.

Genus 1118. NECTOLIPARIS Gilbert and Burke.

Nectoliparis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 82 (*N. pelagicus* Gilbert and Burke).

3159. Nectoliparis pelagicus Gilbert and Burke.

Bering Sea to Hokkaido, Japan; pelagic.

Nectoliparis pelagicus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 82, fig. 27, Bering Sea.

Genus 1119. ELASSODISCUS Gilbert and Burke.

Elassodiscus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 81 (*E. tremebundus* Gilbert and Burke).

3160. Elassodiscus tremebundus Gilbert and Burke.

Coast of Kamchatka.

Elassodiscus tremebundus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 81, Avatcha Bay.

Genus 1120. CAREPROCTUS Krøyer.

Careproctus Krøyer, Naturh. Tidskr., I, 1862, 253-257 (*Liparis reinhardi* Krøyer).

Allochir Jordan and Evermann, Check List, 1895, 452 (*Careproctus melanurus* Gilbert).

Allurus Jordan and Evermann, loc. cit., 452 (*Careproctus ectenes* Gilbert).

Alinectes Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2866 (*Careproctes ectenes* Gilbert, substitute for *Allurus*, preoccupied).

Subgenus CAREPROCTUS Krøyer.**3161. Careproctus reinhardi (Krøyer).**

Greenland, Jan Mayen, and Beeren Island.

Liparis reinhardi Krøyer, Naturh. Tidskr., I, 1862, 252, Greenland.

3162. Careproctus colletti Gilbert.

South of Alaska Peninsula to Sea of Okhotsk.

Careproctus colletti Gilbert, Rept. U. S. Fish Com., XIX, 1893, 442, south of Alaska Peninsula, at Albatross station 3338 in 625 fathoms.

3163. Careproctus phasma Gilbert.

Bristol Bay, Alaska.

Careproctus phasma Gilbert, Rept. U. S. Fish Com., XIX, 1893, 443, Bristol Bay, Alaska, at Albatross stations 3254 and 3256 in 46 and 49 fathoms.

3164. Careproctus spectrum Bean.

Between Unga and Nagai Islands, Alaska.

Careproctus spectrum Bean, Proc. U. S. Nat. Mus., XIII, 1890, 40, between Unga and Nagai Islands, 160° 18' W., 55° 10' N., at Albatross station 2848 in 110 fathoms.

3165. Careproctus ranulus (Goode and Bean).

Off Halifax Harbor.

Liparis ranula Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 46, Halifax.

3166. Careproctus gelatinosus (Pallas).

Peter and Paul Harbor, Kamchatka.

Cyclopterus gelatinosus Pallas, Spicilegia, VII, 1769, 19, Peter and Paul Harbor, Kamchatka.

3167. Careproctus ostentum Gilbert.

Unalaska Island.

Careproctus ostentum Gilbert, Rept. U. S. Fish Com., XIX, 1893, 444, north of Unalaska Island, at Albatross stations 3324 and 3331 in 109 and 350 fathoms.

3168. Careproctus furcellus Gilbert and Burke.

Bering Sea.

Careproctus furcellus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 80, between Petrel Bank and Agattu Island, Bering Sea.

3169. Careproctus gilberti Burke.

Southeastern Alaska and British Columbia.

Careproctus gilberti Burke, Proc. U. S. Nat. Mus., XLIII, 1913, 570, Kodiak Island and neighborhood in 102 to 482 fathoms.

3170. *Careproctus candidus* Gilbert and Burke.
Attu Island, Aleutian Chain.
Careproctus candidus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 77, fig. 22, East Cape, Attu Island, Alaska.
3171. *Careproctus mollis* Gilbert and Burke.
Attu Island, Aleutian Chain.
Careproctus mollis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 77, fig. 21, East Cape, Attu Island, Alaska.
3172. *Careproctus bowersianus* Gilbert and Burke.
Bering Sea.
Careproctus bowersianus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 76, fig. 20, Bowers Bank, Bering Sea.
3173. *Careproctus opisthotremus* Gilbert and Burke.
Bering Sea.
Careproctus opisthotremus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 78, fig. 23, Petrel Bank, between Attu and Agattu Islands, Alaska.
3174. *Careproctus longifilis* Garman.
Off Galapagos Islands and Panama in deep water.
Careproctus longifilis Garman, Mem. Mus. Comp. Zool., XIV, 1892, 9, southwest Panama.
3175. *Careproctus longipinnis* Burke.
Arctic Ocean; Faroe Islands to Beeren Island.
Careproctus longipinnis Burke, Ann. Mag. Nat. Hist., 8th ser., IX, 1912, 510, Ingolf station 139, north of the Faroe Islands, depth 702 Danish fathoms.
3176. *Careproctus melanurus* Gilbert.
Off coast of California and Oregon.
Careproctus melanurus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 560, off coasts of California and Oregon, at *Albatross* stations 2840, 2891, and others in 178 to 339 fathoms.
3177. *Careproctus attenuatus* Gilbert and Burke.
Bering Sea.
Careproctus attenuatus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 79, Petrel Bank and Agattu Island, Alaska in 482 fathoms.
- Subgenus **ALLINECTES** Jordan and Evermann.
3178. *Careproctus ectenes* Gilbert.
Unalaska Island.
Careproctus ectenes Gilbert, Rept. U. S. Fish Com., XIX, 1893, 442, north of Unalaska, at *Albatross* station 3331 in 350 fathoms.
- Genus 1121. **PROGNURUS** Jordan and Evermann.
Prognurus Jordan and Evermann, Fishes North and Mid. Amer., 1896, 2866 (*P. cypselurus* Jordan and Gilbert).
3179. *Prognurus cypselurus* Jordan and Gilbert.
Bering Sea and north Pacific.
Prognurus cypselurus Jordan and Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2866, Bogoslof Island, Bering Sea.
- Genus 1122. **GYRINICHTHYS** Gilbert.
Gyrinichthys Gilbert, Rept. U. S. Fish Com., XIX, 1893, 444 (*G. minytremus* Gilbert).
3180. *Gyrinichthys minytremus* Gilbert.
Off Unalaska Island, Alaska.
Gyrinichthys minytremus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 444, north of Unalaska at *Albatross* station 3331 in 350 fathoms.

Genus 1123. *PARALIPARIS* ⁷⁸ Collett.

Paraliparis Collett, Vid. Selsk. Forsk. Christiania, No. 14, 1878, 32 (*Paraliparis bathybi* Collett); species allied to *P. cephalus* with narrow gill openings.

Amitra Goode, Proc. U. S. Nat. Mus., III, 1880, 478 (*A. liparina* Goode).

Monomitra Goode, loc. cit., VI, 1883, 109 (*Amitra liparina* Goode); substitute for *Amitra* regarded as preoccupied by *Amitrus* Schönherr, a beetle.

Hilgendorfia Goode and Bean, Oceanic Ichthyol., 1895, 280 (*Paraliparis membranaceus* Günther).

Amitrichthys Jordan and Evermann, Check List, 1895, 453 (*Paraliparis cephalus* Gilbert).

3181. *Paraliparis holomelas* Gilbert.

North of Unalaska Island, Alaska.

Paraliparis holomelas Gilbert, Rept. U. S. Fish Com., XIX, 1893, 441, north of Unalaska, at *Albatross* stations 3308 and 3332 in 406 and 1,625 fathoms.

3182. *Paraliparis cephalus* Gilbert.

Alaska to California.

Paraliparis cephalus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 561, off California and Oregon, at *Albatross* station 2919 in 984 fathoms.

3183. *Paraliparis mento* Gilbert.

Coast of Oregon.

Paraliparis mento Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 562, off coast of Oregon, at *Albatross* station 3071 in 685 fathoms.

3184. *Paraliparis albescens* Gilbert.

Off Monterey Bay, Calif.

Paraliparis albescens Gilbert, Proc. U. S. Nat. Mus., XLVIII, 355, pl. 18, fig. 13, off Monterey Bay.

3185. *Paraliparis caudatus* Gilbert.

Monterey Bay, Calif.

Paraliparis caudatus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 356, pl. 18, fig. 14, Monterey Bay.

3186. *Paraliparis deani* Burke.

Bering Sea; once taken in Monterey Bay.

Paraliparis deani Burke, Proc. U. S. Nat. Mus., XLIII, 1912, 571, Stevens Passage, Alaska.

3187. *Paraliparis dactylosus* Gilbert.

Off Santa Cruz, Calif.

Paraliparis dactylosus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 469, pl. 34, fig. 2, off Santa Cruz, Calif., at *Albatross* station 3112, in 296 fathoms.

3188. *Paraliparis grandiceps* Garman.

Off Lower California in deep water.

Paraliparis grandiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, off Lower California.

3189. *Paraliparis rosaceus* Gilbert.

Pacific coast of Mexico.

Paraliparis rosaceus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 93, Pacific coast of Mexico, at *Albatross* stations 2898, 2935, and others in 61 to 158 fathoms.

3190. *Paraliparis fimbriatus* Garman.

Off Colombia and Galapagos Islands in deep water.

Paraliparis fimbriatus Garman, in Mem. Mus. Comp. Zool., XIV, 1892, 9, southwest of Panama.

3191. *Paraliparis attenuatus* Garman.

Off Bay of Panama in deep water.

Paraliparis attenuatus Garman, Deep Sea Fishes, Mem. Mus. Comp. Zool., XXIV, 1899, 118, pl. XXVII, off Bay of Panama.

⁷⁸ This group of degenerate liparids is excessively abundant in all northern sea bottoms at considerable depths. It should, no doubt, be subdivided, but the present knowledge of the group hardly permits this.

3192. *Paraliparis angustifrons* Garman.
Off Bay of Panama in deep water.
Paraliparis angustifrons Garman, Mem. Mus. Comp. Zool. XXIV, 1899, 119, Pl. XXVII, Albatross station 3394, off Bay of Panama.
3193. *Paraliparis latifrons* Garman.
Off Bay of Panama in deep water.
Paraliparis latifrons Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 120, Pl. XXVII, off Bay of Panama.
3194. *Paraliparis garmani* Burke
Off coast of New England.
Paraliparis garmani Burke, Proc. U. S. Nat. Mus., XLIII, 1912, 572, off coast of New England in 328 to 542 fathoms.
3195. *Paraliparis copei* Goode and Bean.
Gulf Stream.
Paraliparis copei Goode and Bean, Oceanic Ichth., 1896, 279, fig. 353, Gulf Stream, at Albatross station 2232, 39° 12' 17" N., 72° 9' 30" W., in 520 fathoms.
- Subgenus AMITRA Goode and Bean.
3196. *Paraliparis liparinus* (Goode).
Atlantic Ocean, off Rhode Island.
Amitra liparina Goode, Proc. U. S. Nat. Mus., III, 1880, 478, off Rhode Island.
- Subgenus HILGENDORFIA Goode and Bean.
3197. *Paraliparis ulochir* Gilbert.
Gulf of California to Unalaska.
Paraliparis ulochir Gilbert, Rept. U. S. Fish Com., XIX, 1893, 441, Gulf of California, at Albatross station 3010 in 1005 fathoms.
- Genus 1124. RHINOLIPARIS Gilbert.
Rhinoliparis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 445 (*R. barbifer* Gilbert).
3198. *Rhinoliparis barbifer* Gilbert.
Bering Sea.
Rhinoliparis barbifer Gilbert, Rept. U. S. Fish Com., XIX, 1893, 445, north of Unalaska, Alaska, at Albatross stations 3237, 3325, and others, in 225 to 576 fathoms.
3199. *Rhinoliparis attenuatus* Burke.
Bering Sea.
Rhinoliparis attenuatus Burke, Proc. U. S. Nat. Mus., XLIII, 1912, 573, Bering Sea in 576 fathoms.

Family 245. PERISTEDIIDÆ

- Genus 1125. PERISTEDION Lacépède.
Peristedion Lacépède, Hist. Nat. Poiss., III, 1802, 368 (*P. malarma* Lacépède = *Trigla cataphracta* L.).
Peristethus Kaup, amended spelling.
3200. *Peristedion brevirostre* (Günther).
Caribbean Sea.
Peristethus brevirostre Günther, Cat., II, 1860, 217, West Indies.
3201. *Peristedion miniatum* Goode.
Gulf Stream.
Peristedion miniatum Goode, Proc. U. S. Nat. Mus., III, 1880, 349, Gulf Stream, off Rhode Island
3202. *Peristedion longispathum* (Goode and Bean).
West Indies, off Cuba and Barbados.
Peristedium longispatha Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 166, off Santa Cruz Island, West Indies, and off Barbados.
3203. *Peristedion gracile* Goode and Bean.
Gulf of Mexico and Porto Rico.
Peristedion gracile Goode and Bean, Oceanic Ichth., 1896, 473, Gulf of Mexico.

3204. *Peristedion platycephalum* (Goode and Bean).
West Indies; Barbados.
Peristedium platycephalum Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, No. 5, 167, off Barbados.
3205. *Peristedion barbiger* (Garman).
Off Bay of Panama in deep water.
Peristedium barbiger Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 110, off Bay of Panama.
3206. *Peristedion crustosum* (Garman).
Off Bay of Panama in deep water.
Peristedium crustosum Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 112, Pl. A, off Bay of Panama.
- Genus 1126. *VULSICULUS* Jordan and Evermann.
Vulsiculus Jordan and Evermann, Check List, 1895, 489 (*Peristedion imberbe* Poey).
3207. *Vulsiculus imberbis* (Poey).
Gulf of Mexico.
Pterystedion imberbe Poey, Memorias, II, 1861, 367, Cuba; apparently never described.
Peristedion micronemus Poey, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, 321, Cuba; substitute name on discovery of the minute barbels.

Family 246. TRIGLIDÆ

- Genus 1127. *COLOTRIGLA* Gill.
Colotrigla Gill, Proc. U. S. Nat. Mus., XXVII, 1905, 240 (*Prionotus stearnsi* Jordan and Swain).
3208. *Colotrigla stearnsi* (Jordan and Swain).
Gulf of Mexico.
Prionotus stearnsi Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 541, Pensacola, Fla.
- Genus 1128. *GURNARDUS* Jordan and Evermann.
Gurnardus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2152 (*Prionotus gymnostethus* Gilbert).
3209. *Gurnardus birostratus* (Richardson).
Gulf of Fonseca, Pacific coast of Central America.
Prionotus birostratus Richardson, Voy. Sulphur, Ichth., pt. II, 1845, 81, April, Gulf of Fonseca, Pacific coast of Central America.
3210. *Gurnardus gymnostethus* (Gilbert).
Gulf of California.
Prionotus gymnostethus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 559, Gulf of California, in shallow water.
3211. *Gurnardus xenisma* (Jordan and Bollman).
Pacific Ocean, off coast of Colombia.
Prionotus xenisma Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 169, Pacific coast of Colombia.
3212. *Gurnardus loxias* Jordan.
Pacific coast of Central America.
Prionotus loxias Jordan, Proc. U. S. Nat. Mus., XIX, 1896, 452, Bay of Panama.
3213. *Gurnardus ruscarius* (Gilbert and Starks).
Panama Bay; Mazatlan; Magdalena Bay.
Prionotus ruscarius Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 165, Pl. XXVII, Panama Bay.
- Genus 1129. *MERULINUS* Jordan and Evermann.
Merulinus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2148 (*Trigla carolina* Linnæus).

- 3214. *Merulinus carolinus* (Linnæus).** *Common gurnard; Red-winged sea robin; Pigfish; Rock pigfish; Flyingfish; Spinous gurnard; Small-scaled sea robin; Web-fingered sea robin; Carolina robin; Carolina sea robin.*
Cape Ann to South Carolina, chiefly northward.
Trigla carolina Linnæus, Mantissa, II, 1771, 528, Carolina.
Trigla palmipes Mitchill, Trans. Lit. Phil. Soc. New York, 1815, 431, pl. 4, fig. 5, New York Harbor.
Prionotus pileatus Storer, Proc. Bost. Soc. Nat. Hist., II, 1845, 77, Massachusetts Bay.
- 3215. *Merulinus scitulus* (Jordan and Gilbert).**
South Atlantic coast of United States, Beaufort to St. Augustine.
Prionotus scitulus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 288, Beaufort, N. C.
- 3216. *Merulinus roseus* (Jordan and Evermann).**
Gulf of Mexico; Tampa Bay; Pensacola; Tortugas.
Prionotus roseus Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 470, off Tampa Bay, Fla.
- 3217. *Merulinus salmonicolor* Fowler.**
New River, Dade County, Fla.
Merulinus salmonicolor Fowler, Proc. Acad. Nat. Sci. Phila., LV, 1903, 333, New River, Fla.
- Genus 1130. PRIONOTUS Lacépède.** *Gurnards; Sea robins.*
Prionotus Lacépède, Hist. Nat. Poiss., III, 1802, 337 (*Trigla evolans* Linnæus).
Ornichthys Swainson, Classn. Fishes, Amphib., etc., 1839, 262 (*Trigla punctata* Bloch).
Chriolaz Jordan and Gilbert, Proc. U. S. Nat. Mus., I, 1878, 374 (*Trigla evolans* Linnæus).
- 3218. *Prionotus evolans* (Linnæus).** *Southern striped gurnard; Lined sea robin; Flyingfish; Striped sea robin.*
South Atlantic coast of United States.
Trigla evolans Linnæus, Syst. Nat., Ed. XII, 1766, 498, Carolinas.
Prionotus sarritor Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 615, Charleston; Beaufort, N. C.
- 3219. *Prionotus strigatus* (Cuvier).** *Northern striped gurnard; Brown-winged sea robin; Sea robin; Sand pigfish; Pigfish; Flyingfish; Red-winged gurnard.*
Atlantic coast of northern States, Cape Cod to Virginia; replacing *P. evolans* northward.
Trigla strigata Cuvier, Règne Anim., ed. 2, II, 1829, 161, New York; after lineata of Mitchill.
- 3220. *Prionotus rubio* Jordan.** *Rubio volador.*
West Indies.
Prionotus rubio Jordan, Proc. U. S. Nat. Mus., IX, 1886, 50, Habana.
Rubio volador Parra, Deser. Dif. Piezas de Hist. Nat., 1787, 98, lam. 38, Habana.
- 3221. *Prionotus punctatus* Bloch.** *Spotted sea robin; Rubio volador.*
West Indies and Caribbean Sea; Cameron, La.
Prionotus punctatus Bloch, Ichth., 1793, pl. 353, Martinique; on a drawing by Plumier.
- 3222. *Prionotus ophryas* Jordan and Swain.**
Gulf of Mexico; Snapper Banks off Pensacola, Fla.
Prionotus ophryas Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 542, Snapper Banks off Pensacola, Fla.
- 3223. *Prionotus pectoralis* (Nichols and Breder).**
Coast of Texas.
Prionotus miles pectoralis Nichols and Breder, Proc. Biol. Soc. Wash., XXXVII, 1924, 22, Gulf of Mexico, off Aransas Pass, Tex.
- 3224. *Prionotus stephanophrys* Lockington.**
Deep water off San Francisco, Point Reyes, and Monterey; very rare.
Prionotus stephanophrys Lockington, Proc. U. S. Nat. Mus., III, 1880, 529, Point Reyes, near San Francisco.

3225. *Prionotus quiescens* Jordan and Bollman.
Pacific Ocean off the coast of Colombia; Gulf of California.
Prionotus quiescens Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 166, off Pacific coast of Colombia.
3226. *Prionotus frontalis* Garman.
Off Bay of Panama in deep water.
Prionotus frontalis Garman, Deep Sea Fishes, in Mem. Mus. Comp. Zool., XXIV, 1899, 108, off Bay of Panama.
3227. *Prionotus albirostris* Jordan and Bollman.
Pacific Ocean off the coast of tropical America.
Prionotus albirostris Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 168, Pacific Ocean off the coast of Colombia.
3228. *Prionotus beanii* Goode.
Off Trinidad.
Prionotus beanii Goode, in Goode and Bean, Oceanic Ichth., 1896, 468, off Trinidad.
3229. *Prionotus tribulus* Cuvier and Valenciennes. *Big-headed gurnard*; *Sea robin*.
South Atlantic coast from Long Island to Brazos, Tex.
Prionotus tribulus Cuvier and Valenciennes, Hist. Nat. Poiss., IV, 1829, 72 (98), pl. 74, New York; Carolinas.
? *Trigla carolina* Bloch, Ichth., 1793, 352, Carolinas; not of Linnæus.
3230. *Prionotus horrens* Richardson.
Pacific coast of tropical America.
Prionotus horrens Richardson, Voy. *Sulphur*, Ichth., 1843, 79, pl. 42, figs. 1-3, Gulf of Fonseca.
- Genus 1131. *FISSALA* Gill.
Fissala Gill, Proc. U. S. Nat. Mus., XXVIII, 1905, 342 (*Prionotus alatus* Goode and Bean).
3231. *Fissala alata* (Goode and Bean).
Off Charleston, S. C.
Prionotus alatus Goode and Bean, Bull. Mus. Comp. Zool., X, 1883, 210, deep sea off Charleston, S. C.
- Genus 1132. *BELLATOR* Jordan and Evermann.
Bellator Jordan and Evermann, Check List, 1895, 488 (*Prionotus militaris* Goode and Bean).
3232. *Bellator militaris* (Goode and Bean).
Off Cape Catoche, Yucatan; Gulf of Mexico.
Prionotus militaris Goode and Bean, Oceanic Ichth., 1896, 464, figs. 380 and 384, off Cape Catoche, Yucatan.
3233. *Bellator egretta* (Goode and Bean).
Barbados.
Prionotus egretta Goode and Bean, Oceanic Ichth., 1896, 465, fig. 381, off Barbados, at Blake station 64.

Family 247. DACTYLOPTERIDÆ

- Genus 1133. *DACTYLOPTERUS* Lacépède. *Flying gurnards*.
Cephalacanthus Lacépède, Hist. Nat. Poiss., III, 1802, 323 (*C. spinarella* Lacépède); young examples.
Dactylopterus Lacépède, loc. cit., 325 (*D. pirapeda* Lacépède = *Trigla volitans* Linnæus); adult form.
Cephaecandia Rafinesque, Analyse Nature, 1815, 85; substitute for *Cephalacanthus*; too long a name.
Gonocephalus Gronow, Cat. Fish., ed. Gray, 1854, 106 (*G. macrocephalus* Gray = *Trigla volitans* Linnæus).

- 3234. *Dactylopterus volitans* (Linnaeus).** *Flying robin; Batfish; Volador; Flying gurnard; Murcielago; Civetta de mer.*
Atlantic Ocean on both coasts; also Gulf of Mexico.
Trigla volitans Linnaeus, Syst. Nat., Ed. X, I, 1758, 302; after Artedi.
Hirundo Catesby, Nat. Hist. Carol., II, 1771, Tab. 8, p. 8, Bahamas.
Trigla tentabunda Walbaum, Artedi Piscium, III, 1792, 362; after Klein.
Trigla fasciata Bloch and Schneider, Syst. Ichth., 1801, 16, tab. 3, fig. 1; after Klein.
Dactylopterus pirapeda Lacépède, Hist. Nat. Poiss., III, 1802, 326, Mediterranean and almost all warm seas.
Polynemus serradiatus Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, pl. 4, fig. 10, New York.
Callionymus pelagicus Rafinesque, Amer. Month. Mag., 1818, 205, Atlantic Ocean.
Gonocephalus macrocephalus Gronow, Cat. Fish., ed. Gray, 1854, 106; pelagic.

Order SS. HOLCONOTI

Family 248. EMBIOTOCIDÆ. Surfishes; Viviparous perches

Genus 1134. MICROMETRUS Gibbons.

Micrometrus Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 30, 1854 (*M. minimus* Gibbons).
Abeona Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 322 (*A. trowbridgei* Girard).

3235. *Micrometrus minimus* (Gibbons).

San Francisco to San Diego.
Cymatogaster minimus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854, 106, San Francisco Bay.
Holoconotus trowbridgei Girard, loc. cit., 152, no locality given.

Genus 1135. AMPHIGONOPTERUS Hubbs.

Amphigonopterus Hubbs, Proc. Biol. Soc. Wash., XXXI, May 16, 1918, 13 (*Abeona aurora* Jordan and Gilbert).

3236. *Amphigonopterus aurora* (Jordan and Gilbert).

Monterey Bay, Calif.
Abeona aurora Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 299, Monterey Bay, Calif.

Genus 1136. CYMATOGASTER Gibbons.

Cymatogaster Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 18, 1854 (*C. aggregatus* Gibbons).
Metrogaster Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 128 (*Cymatogaster aggregatus* Gibbons).
Sema Jordan, Bull. U. S. Geol. Surv., IV, 1878, 399 (*S. signifer* Jordan; larvæ with very high vertical fins and closely compressed body).

3237. *Cymatogaster aggregatus* Gibbons. *Sparada; Viviparous perch; Perch.*

Pacific coast from Port Wrangel, Alaska, to Todos Santos Bay.
Cymatogaster aggregatus Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 18, 1854, San Francisco.
Sema signifer Jordan, Bull. Hayden's Geol. Surv., IV, 1878, 399, Rio Grande, Tex.; error for San Francisco.
Metrogaster lineolatus Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 129, no locality.

Genus 1137. BRACHYISTIUS Gill.

Brachyistius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 275 (*B. frenatus* Gill).

3238. *Brachyistius frenatus* Gill.

Vancouver Island to San Diego.
Brachyistius frenatus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 275, California coast.
Ditrema brevipinne Günther, Cat., IV, 1862, 248, Esquimaux Harbor, Vancouver Island.

Genus 1138. ZALEMBIUS Jordan and Evermann.

Zalembeius Jordan and Evermann, Fishes North and Mid. Amer., 1896, 1499 (*Cymatogaster rosaceus* Jordan and Gilbert).

3239. Zalembeius rosaceus (Jordan and Gilbert).

San Francisco, Calif.

Cymatogaster rosaceus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 303, off San Francisco in rather deep water; the other species of this family live on sandy shores.

Genus 1139. HYPOCRITICHTHYS Gill.

Hypocritichthys Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 275 (*Hyperprosopon analis* Alexander Agassiz).

3240. Hypocritichthys analis (Agassiz).

San Francisco to Point Conception.

Hyperprosopon analis Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 133, San Francisco.

Genus 1140. TOCICHTHYS Hubbs.

Tocichthys Hubbs, Proc. Biol. Soc. Wash., XXXI, May 16, 1918, 12 (*Hyperprosopon agassizii* Gill).

3241. Tocichthys agassizii (Gill).

Coast of California, San Francisco to Santa Barbara; most common along San Luis Obispo County.

Hyperprosopon agassizii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 276, California.

Genus 1141. HYPERPROSOPON Gibbons.

Hyperprosopon Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 18, 1854 (*H. argenteum* Gibbons).

Eunichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1855, 322 (*E. megalops* Girard).

Bramopsis Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 132 (*B. mento* Agassiz = *Hyperprosopon argenteus* Girard).

3242. Hyperprosopon argenteus Gibbons. Wall-eyed surf-fish; White perch. Coast of California, Cape Disappointment to Todos Santos Bay.

Hyperprosopon argenteum Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854, 105, San Francisco.

Hyperprosopon argenteum punctatum Gibbons, loc. cit., 106, San Francisco.

Hyperprosopon arcuatum Gibbons, loc. cit., 125, San Francisco.

Holconotus megalops Girard, loc. cit., Presidio, Humboldt Bay; Astoria.

Bramopsis mento Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 133, no locality.

Genus 1142. HOLCONOTUS Agassiz.

Holconotus Agassiz, Amer. Jour. Sci. Arts., XVII, May, 1854, 367 (*H. rhodoterus* Agassiz).

Cymatogaster Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, June 21, 1854 (*C. pulchellus* Gibbons); not of Gibbons, May 18, 1854.

3243. Holconotus rhodoterus Agassiz.

Coast of California, San Francisco to San Diego.

Holconotus rhodoterus Agassiz, Amer. Jour. Sci. Arts., XVII, May, 1854, 368, San Francisco.

Cymatogaster pulchellus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, July, 1854, 123, San Francisco.

Cymatogaster larkinsi Gibbons, loc. cit., 123, San Francisco.

Cymatogaster ellipticus Gibbons, loc. cit., 124, San Francisco.

Genus 1143. AMPHISTICHUS Agassiz.

Amphistichus Agassiz, Amer. Jour. Sci. Arts., May, 1854, 367 (*A. argenteus* Agassiz).

Mytilophagus Gibbons, Proc. Acad. Nat. Sci. Phila., VI, July, 1854, 125 (*M. fasciatus* Gibbons = *A. argenteus* Agassiz).

3244. *Amphistichus argenteus* Agassiz.

Pacific coast, from Cape Flattery to San Diego; very abundant on sandy shores.

Amphistichus argenteus Agassiz, Amer. Jour. Sci. Arts, XVII, May, 1854, 367, San Francisco.

Mytilophagus fasciatus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, July, 1854, 125, San Francisco.

Amphistichus heermanni Girard, loc. cit., 135, Cape Flattery, San Francisco.

Amphistichus similis Girard, loc. cit., 153, San Francisco.

Genus 1144. EMBIOTOCA Agassiz..

Embiotoca Agassiz, Amer. Jour. Sci. Arts, XVI, 1853 (November), 386 (*E. jacksoni* Agassiz).

3245. *Embiotoca jacksoni* Agassiz. *Black surf-fish*.

Vancouver Island to Todos Santos Bay; abundant and variable.

Embiotoca jacksoni Agassiz, Amer. Jour. Sci. Arts, XVII, 1853, 387, and XVIII, 1854, 366, San Francisco.

Holconotus fuliginosus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854, 123, San Francisco.

Embiotoca cassidyi Girard, loc. cit., 151, San Diego.

?*Embiotoca webbii* Girard, loc. cit., VIII, 1855, 320, San Diego.

Genus 1145. TÆNIOTOCA Alexander Agassiz.

Holconotus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854 (July), 122 (*H. agassizii* Gibbons=*Embiotoca lateralis* Agassiz); not *Holconotus* Agassiz.

Tæniotoca Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 133 (*Embiotoca lateralis* Agassiz).

3246. *Tæniotoca lateralis* (Agassiz). *Striped surf-fish*.

Vancouver Island to Todos Santos Bay; abundant southward.

Embiotoca lateralis Agassiz, Amer. Jour. Sci. Arts., XVIII, 1854 (May), 356, San Francisco.

Holconotus agassizii Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854 (July), 122, San Francisco.

Embiotoca lineata Girard, loc. cit., (Aug.), 134, San Francisco, Tomales Bay, Presidio.

Embiotoca ornata Girard, loc. cit., VII, 1855, 321, San Diego, Calif.

Embiotoca perspicabilis Girard, loc. cit., 321, Puget Sound.

Genus 1146. PHANERODON Girard.

Phanerodon Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 153 (*P. furcatus* Girard).

3247. *Phanerodon furcatus* Girard. *White surf-fish*.

Pacific coast from Vancouver Island to Todos Santos Bay; abundant southward.

Phanerodon furcatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 153, Presidio, San Francisco, Calif.

3248. *Phanerodon atripes* (Jordan and Gilbert).

Monterey to San Diego; scarce.

Ditrema atripes Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 320, Monterey Bay, Calif.

Ditrema orthonotus Eigenmann and Eigenmann, West American Scientist, October, 1889, 127, Cortez Banks, off San Diego.

Genus 1147. RHACOCILUS Agassiz.

Rhacochilus Agassiz, Amer. Jour. Sci. Arts, XVIII, 1854 (May), 367 (*R. toxotes* Agassiz).

Pachylabrus Gibbons, Proc. Calif. Acad. Sci., in Daily Placer Times and Transcript, June 21, 1854 (*P. variegatus* Gibbons=*R. toxotes* Agassiz).

3249. *Rhacochilus toxotes* Agassiz. *Bigmouth surf-fish*; *Alfione*.

Rhacochilus toxotes Agassiz, Amer. Jour. Sci. Arts, XVIII, 1854 (May), 367, San Francisco.

Pachylabrus variegatus Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854 (July), 126, San Francisco.

Genus 1148. *HYPSURUS* Alexander Agassiz.

Hypsurus Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 133 (*Embiotoca caryi* Agassiz).

3250. *Hypsurus caryi* (Agassiz). *Bugara*.

Cape Mendocino to San Diego; common northward.

Embiotoca caryi Agassiz, Amer. Jour. Sci. Arts, XVI, 1853, 389, and XVII, 1854, 366, San Francisco.

Holconotus gibbonsi (Gibbons MS., Proc. Calif. Acad. Sci., 1854), Gibbons, Proc. Acad. Nat. Sci. Phila., VII, 1854, 12, San Francisco.

Genus 1149. *DAMALICHTHYS* Girard.

Damalichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1855, 321 (*D. vacca* Girard = *D. argyrosoma* Girard).

3251. *Damalichthys argyrosoma* Girard.

Vancouver Island to Tocos Santos Bay; very abundant northward.

Damalichthys argyrosoma Girard, Proc. Acad. Nat. Sci. Phila., VII, 1855, 136, San Francisco; young individual in bad condition.

Damalichthys vacca Girard, loc. cit., 321, Puget Sound.

Genus 1150. *HYSTEROCARPUS* Gibbons.

Hysteroecarpus Gibbons, Proc. Calif. Acad. Nat. Sci., in Daily Placer Times and Transcript, May 18, 1854, and in Proc. Acad. Nat. Sci. Phila., VII, 1854, 124 (*H. traski* Gibbons).

Sargosomus Agassiz, in Alexander Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 128 (*S. fluviatilis* Agassiz = *Hysteroecarpus traski* Gibbons).

Dacentrus Jordan, Bull. U. S. Geol. Surv., IV, 1878, 667 (*D. lucens* Jordan; very young).

3252. *Hysteroecarpus traski* Gibbons.

Rivers of central California, chiefly in the Sacramento-San Joaquin Valley from Lake County to Santa Clara County.

Hysteroecarpus traski Gibbons, Proc. Acad. Nat. Sci., Phila., VII, 1854, 105, lower Sacramento River.

Sargosomus fluviatilis Agassiz, Proc. Bost. Soc. Nat. Hist., VIII, 1861, 130, Sacramento.

Dacentrus lucens Jordan, Bull. U. S. Geol. Surv., IV, 1878, 667, "Rio Grande, Tex." locality erroneous, should be San Francisco.

Order TT. CHROMIDES

Family 249. POMACENTRIDÆ

Genus 1151. *AZURINA* Jordan and McGregor.

Azurina Jordan and McGregor, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1544 (*A. hirundo* Jordan and McGregor).

3253. *Azurina hirundo* Jordan and McGregor.

Pacific coast of Mexico.

Azurina hirundo Jordan and McGregor, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1544, Guadalupe Island, off Lower California.

Genus 1152. *FURCARIA* Poey.

Furcaria Poey, Memorias, II, 1860, 194 (*F. puncta* Poey = *Heliases multilineatus* Guichenot in Ramon de la Sagra, Hist. fisica Cuba, IV).

3254. *Furcaria atrilobata* (Gill).

Pacific coast of America, from Cape San Lucas southward.

Chromis (*Furcaria*) *atrilobata* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 149, Cape San Lucas, Lower California.

3255. *Furcaria cyanea* Poey.

Cuba.

Furcaria cyanea Poey, Memorias, II, 1860, 196, Cuba.

3256. *Furcaria multilineata* (Guichenot).

Cuba.

Heliases multilineatus Guichenot, in Ramon de la Sagra, Poiss. Cuba, 1853, 76, pl. 2, fig. 2, Habana.

Furcaria puncta Poey, Memorias, II, 1860, 195, Cuba.

3257. *Furcaria bermudæ* (Nichols).

Bermuda.

Chromis bermudæ Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 60, Bermuda.**Genus 1153. HELIASES Cuvier and Valenciennes.***Heliases* Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 369 (495) (*H. insolatus* Cuvier and Valenciennes).*Heliastes* Günther, revised spelling.**3258. *Heliases insolatus* Cuvier and Valenciennes. *Chauffe soleil*.**

West Indies, north to Pensacola.

Heliases insolatus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 370 (494), pl. 137, Martinique.**3259. *Heliases enchrysurus* (Jordan and Gilbert).**

Snapper Banks off Pensacola and Tampa, Fla.

Chromis enchrysurus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 286, Pensacola, Fla.**3260. *Heliases marginatus* Castelnau.**

Brazil; St. Croix Island, West Indies.

Heliases marginatus Castelnau, Anim. Amer. Sud, Poiss., 1855, 9, Pl. III, fig. 1, Bahia.**Genus 1154. AYRESIA⁷⁹ Cooper.***Ayresia* Cooper, Proc. Calif. Acad. Nat. Sci., 1st ser., III, 1863, 73 (*A. punctipinnis* Cooper).**3261. *Ayresia punctipinnis* Cooper. *Blacksmith*.**

Coast of California, from Point Conception to Cedros Island.

Ayresia punctipinnis Cooper, Proc. Calif. Acad. Nat. Sci., 1st ser., III, 1863, 73, San Diego Bay, San Pedro, and Santa Barbara.**Genus 1155. EUPOMACENTRUS⁸⁰ Bleeker.***Eupomacentrus* Bleeker, Nat. Verh. Holl. Maats., Wetensk., II, 1877, 73 (*Pomacentrus lividus* Bleeker); teeth in one row, truncate; snout scaly; lower jaw naked; dorsal not notched.*Amblypomacentrus* Bleeker, loc. cit., 68 (*Pomacentrus breviceps*); similar, snout naked.**3262. *Eupomacentrus fuscus* (Cuvier and Valenciennes). *Maria molle*.**

West Indies and coast of Brazil north to Key West.

Pomacentrus fuscus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 324 (432), Brazil.*Pomacentrus variabilis* Castelnau, Anim. Nouv. ou Rares, Poiss., 1855, 9, pl. 3, fig. 3, Bahia.*Pomacentrus atro-cyanus* Poey, Memorias, II, 1861, 190, Cuba.**3263. *Eupomacentrus diencæus* Jordan and Rutter.**

Jamaica.

Eupomacentrus diencæus Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 116, Jamaica.**3264. *Eupomacentrus leucostictus* (Müller and Troschel). *Cockeye pilot*;***Beau Gregoire*; *Black pilot*.

West Indies to Snapper Banks, west Florida; accidental north to Woods Hole, Mass.

Pomacentrus leucostictus Müller and Troschel, in Schomburgk's Hist. Barbados, 1848, 674, Barbados.*Pomacentrus xanthurus* Poey, Memorias, II, 1861, 190, Cuba.*Pomacentrus caudalis* Poey, Synopsis, 1867, 328, Cuba.*Pomacentrus dorso-punicans* Poey, loc. cit., 328, Cuba.**3265. *Eupomacentrus analis* (Poey).**

Cuba, Key West, and Porto Rico.

Pomacentrus analis Poey, Synopsis, 1867, 327, Cuba.

⁷⁹ This genus is near the Mediterranean genus *Chromis* Cuvier, based on *Sparus chromis* Linnæus, a species with 14 dorsal spines, the head high and narrow, the tail short, the caudal not deeply forked. *Furcaria* and *Heliases* are also closely related and usually the four groups have been united into one as *Chromis* or "*Heliastes*."

⁸⁰ In the closely related old world genus *Pomacentrus* the teeth are in two rows. Several of the species here accepted are of very doubtful validity, and the genera of Bleeker derived from the subdivisions of *Pomacentrus* need further study.

3266. *Eupomacentrus otophorus* (Poey).
Cuba.
Pomacentrus otophorus Poey, *Memorias*, II, 1861, 188, Cuba.
3267. *Eupomacentrus chrysus* Bean.
Bermudas.
Eupomacentrus chrysus Bean, *Proc. Biol. Soc. Wash.*, XIX, 1906, 32, Whites Flat Channel, Bermudas.
3268. *Eupomacentrus flaviventer* (Troschel).
Atlantic coast of Mexico.
Pomacentrus flaviventer Troschel, in J. W. von Müller's *Reisen in den Vereinigten Staaten, Canada, und Mexico*, III, 1865, 633, Atlantic Ocean.
3269. *Eupomacentrus gillii* (Gilbert and Starks).
Panama.
Pomacentrus gillii Gilbert and Starks, *Mem. Calif. Acad. Sci.*, IV, 1904, 141, pl. XXII, fig. 44, Panama.
3270. *Eupomacentrus partitus* (Poey).
Cuba.
Pomacentrus partitus Poey, *Synopsis*, 1867, 327, Cuba.
3271. *Eupomacentrus planifrons* (Cuvier and Valenciennes). *Petite jaquette*.
Tortugas; West Indies, Jamaica to Martinique.
Pomacentrus planifrons Cuvier and Valenciennes, *Hist. Nat. Poiss.*, V, 1830, 323 (431), Martinique.
3272. *Eupomacentrus leucorus* (Gilbert).
Socorro Island, one of the Revillagigedo group, off Pacific coast of Mexico.
Pomacentrus leucorus Gilbert, *Proc. U. S. Nat. Mus.*, XIV, 1891, 554, Socorro Island.
3273. *Eupomacentrus adustus* (Troschel).
Cuba.
Pomacentrus adustus Troschel, in J. W. von Müller's *Reisen in den Vereinigten Staaten, Canada und Mexico*, III, 1865, 633, Mexico.
Pomacentrus obscuratus Poey, *Enumeratio*, 1876, 101, Habana.
3274. *Eupomacentrus rectifrænum* (Gill). *Pescado azul de dos colores*.
Pacific coast of America from Cape San Lucas to Panama; common.
Pomacentrus rectifrænum Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 148, Cape San Lucas, Lower California.
Pomacentrus analigutta Günther, *Cat.*, IV, 1862, 27, Cape San Lucas.
3275. *Eupomacentrus flavilatus* (Gill). *Pescado azul de dos colores*.
Pacific coast of America, from Cape San Lucas to Mazatlan and beyond.
Pomacentrus flavilatus Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 148, Cape San Lucas, Lower California.
3276. *Eupomacentrus nepenthe* Nichols.
Bahamas.
Eupomacentrus nepenthe Nichols, *Amer. Mus. Novitates*, XXVI, 1921, 1, fig. 1, Bahamas.
- Genus 1156. *NEXILARIUS* Gilbert.
Nexilarius Gilbert, in Jordan and Evermann, *Check List*, 1895, 512 (*Euschistodus concolor* Gill); misprinted *Nexilaris*.
3277. *Nexilarius concolor* (Gill).
Panama.
Euschistodus concolor Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 145, Panama.
- Genus 1157. *ABUDEFDUF*⁸¹ Forskål. *Pintanos*.
Abudefduf Forskål, *Descr. Anim.*, etc., 1775, 59 (*Chætodon sordidus* Forskål).
Glyphisodon Lacépède, *Hist. Nat. Poiss.*, IV, 1803, 542 (*Chætodon saxatilis* Linnæus).
Euschistodus Gill, *Proc. Acad. Nat. Sci. Phila.*, XIV, 1862, 145 (*E. declivifrons* Gill).

⁸¹ The small brilliantly colored species of coral reefs in the South Seas constituting the genus *Chrysiptera* Swainson are probably separable from *Abudefduf*.

- 3278. *Abudefduf marginatus* (Bloch).** *Pintano; Cow pilot; Jaqueta; Mojarra raiado; Demoiselle.*
Atlantic coast of tropical America, West Indies, to Brazil; once reported from Newport, R. I.
Jaguacanguare Maregrave, Hist. Brazil, 1648, 156, Brazil.
Chætodon marginatus Bloch, Ichthyol., III, 1787, 98, Martinique; after Plumier.
Chætodon sargoides Lacépède, Hist. Nat. Poiss., IV, 1803, 452, Martinique.
Glyphisodon moucharra Lacépède, loc. cit., 542, Brazil.
Glyphidodon saxatilis of authors, not of Linnæus, an Asiatic species.
? *Chætodon mauritii* Bloch, Naturgesch. Ausl. Fische, III, 1787, 109, Brazil, on a drawing by Prince Maurice. A doubtful species, apparently the same as *A. marginatus*.
- 3279. *Abudefduf troschelii* (Gill).**
Pacific coast of Mexico; Cape San Lucas; Socorro Island; Cocos Islands; Galapagos.
Glyphidodon troschelii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 150, Cape San Lucas.
- 3280. *Abudefduf declivifrons* (Gill).**
Pacific coast of tropical America, from Cape San Lucas southward.
Euschistodus declivifrons Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 145, 146, Cape San Lucas.
- 3281. *Abudefduf analogus* (Gill).**
Atlantic coast of Central America.
Euschistodus analogus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 220, Aspinwall.
- 3282. *Abudefduf taurus* (Müller and Troschel).** *Dovetail fish.*
Tortugas; Barbados.
Glyphidodon taurus Müller and Troschel, in Schomburgk, Hist. Barbados, 1848, 674, Barbados.
- Genus 1158. CENTROCHROMIS** Norman.
Centrochromis Norman, Ann. Mag. Nat. Hist., ser. 9, IX, 1922, 534 (*Glyphidodon rudis* Poey.)
- 3283. *Centrochromis rudis* (Poey).**
Cuba.
Glyphidodon rudis Poey, Memorias, II, 1861, 191, Cuba.
- Genus 1159. HYPSTYPOPS** Gill. *Garibaldi.*
Hypsypops Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 165 (*Glyphisodon rubicundus* Girard).
- 3284. *Hypsypops rubicundus* (Girard).** *Garibaldi; Sea goldfish;* a magnificent and hardy aquarium fish.
Coast of California south of Monterey; abundant about Santa Catalina Island.
Glyphisodon rubicundus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 148, Monterey, Calif.
- Genus 1160. STEGASTES** Jenyns.
Stegastes Jenyns, Voy. Beagle, Fishes, 1842, 63 (*S. imbricatus* Jenyns).
Microspathodon Günther, Cat., IV, 1862, 35 (*Glyphidodon chrysurus* Cuvier and Valenciennes).
Pomacentrus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 214, 216 (*Hypsypops dorsalis* Gill).
- 3285. *Stegastes chrysurus* (Cuvier and Valenciennes).**
Tortugas; West Indies; Cuba and St. Thomas.
Glyphisodon chrysurus Cuvier and Valenciennes, Hist. Nat. Poiss., V, 1830, 356 (476), St. Thomas.
Pomacentrus denegatus Poey, Memorias, II, 1861, 190, Cuba.
- 3286. *Stegastes bairdii* (Gill).**
Pacific coast of tropical America, from Cape San Lucas to Panama.
Pomacentrus bairdii Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 149, Cape San Lucas.

3287. *Stegastes niveatus* (Poey).

Cuba.

Pomacentrus niveatus Poey, Enumeratio, 1876, 102, Habana.3288. *Stegastes dorsalis* (Gill).

Pacific coast of America, from Cape San Lucas to Mazatlan.

Hypsypops dorsalis Gill, Proc. Acad. Nat. Sci. Phila. XIV, 1862, 147, Cape San Lucas; young.*Pomacentrus quadrigutta* Gill, loc. cit., 149, Cape San Lucas.*Microspathodon cinereus* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 71, Clarion and Socorro Islands.*Microspathodon czurissimus* Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 478, pl. 44, Venados Islands, near Mazatlan; adult.Family 250. CICHLIDÆ.⁸² Mojarras de rio

Genus 1161. CICHLAURUS Swainson.

Cichlaurus Swainson, Nat. Hist. Classn. Fishes, etc., II, 1839, 173, definition, but no type named; this is given on p. 230, where, without assigned reason, the name is changed to *Cichlasoma*.*Cichlasoma* Swainson, Nat. Hist., etc., loc. cit., 230 (*Labrus punctatus* Bloch).*Heros* Heckel, Natterers Reise, II, 1840, 362 (*Heros severus* Heckel).3289. *Cichlaurus bifasciatus* (Steindachner).

Mexico.

Heros bifasciatus Steindachner, Denks. Ak. Wiss. Wien, XXIII, 1864, 60, pl. II, Mexico.3290. *Cichlaurus angulifer* (Günther).

East slope of Guatemala.

Heros angulifer Günther, Cat., IV, 1862, 298, River de Santa Isabel, Guatemala.3291. *Cichlaurus microphthalmus* (Günther).

Rio Motagua, Guatemala.

Heros microphthalmus Günther, Cat., IV, 1862, 295, Rio Motagua, Guatemala.3292. *Cichlaurus guttulatus* (Günther).

Pacific drainage of Guatemala.

Heros guttulatus Günther, Proc. Zool. Soc. Lond., 1864, 152, Lake Amatitlan, Guatemala.3293. *Cichlaurus meeki* (Hildebrand). *Mojarra*; *Mojarra negra*; *Mojarra plateada*.

Lakes and rivers of El Salvador, Pacific slope of Central America.

Cichlasoma meeki Hildebrand, Bull. U. S. Bur. Fish., XLI, 1925, 275, fig. 20, Lake Guiga, El Salvador.3294. *Cichlaurus melanurus* (Günther).

Lake Peten, Guatemala.

Heros melanurus Günther, Cat., IV, 1862, 288, Lake Peten, Guatemala.3295. *Cichlaurus fenestratum* (Günther).

Atlantic slope of southern Mexico.

Chromis fenestrata Günther, Proc. Zool. Soc. Lond., 1860, 318, Mexico.3296. *Cichlaurus godmanni* (Günther).

Atlantic slope of Guatemala.

Heros godmanni Günther, Cat., IV, 1862, 296, Rio Cahabon, Guatemala.3297. *Cichlaurus intermedius* (Günther).

Lake Peten, Guatemala.

Heros intermedius Günther, Cat., IV, 1862, 298, Lake Peten, Guatemala.3298. *Cichlaurus deppii* (Heckel).

Mexico.

Heros deppii Heckel, Ann. Wiener Mus., II, 1840, 382, Mexico.

⁸² The many species of this genus in the Mexican region are chiefly the overflow from the vast Brazilian fauna. The larger genera as here recognized are very closely related and were recently regarded as subgenera of *Cichlasoma* (*Cichlaurus*)=*Heros* Heckel; several of the species are only provisionally located and a few (*godmanni*, *hedricki*, *tentiginosus*) may represent new groups not yet defined.

3299. **Cichlaurus calobrensis** (Meek and Hildebrand).
Streams of Panama.
Cichlasoma calobrense Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 90, Rio Calobra, Panama.
3300. **Cichlaurus umbrifer** (Meek and Hildebrand).
Rivers of Panama.
Cichlasoma umbriferum Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1913, 88, Rio Cupe, Cituro, Panama.
- Genus 1162. **THERAPS** Günther.
Theraps Günther, Cat., IV, 1862, 284 (*T. irregularis* Günther).
? *Baiodon* Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1858, 401 (*B. fasciatus* Agassiz); scanty description; said to be slender as in the Sparoid genus *Boops* or *Box*.
3301. **Theraps irregularis** Günther.
Atlantic slope of Guatemala and southern Mexico.
Theraps irregularis Günther, Cat., IV, 1862, 284, Guatemala.
3302. **Theraps mojarra** (Meek).
Pacific slope of Isthmus of Tehuantepec.
Cichlasoma mojarra Meek, Field Mus., Zool., V, 1904, 93, 217, San Geronimo, Oaxaca, Mexico.
3303. **Theraps nebulifer** (Günther).
Atlantic lowland streams of the Isthmus of Tehuantepec.
Heros nebulifer Günther, Proc. Zool. Soc. Lond., 1860, 318, Mexico.
3304. **Theraps gibbiceps** (Steindachner).
Rivers of Tabasco, Mexico.
Heros gibbiceps Steindachner, Denks. Ak. Wiss. Wien, XXIII, 1864, 66, Pl. V, figs. 1 and 2, Rio Teapa, Tabasco, Mexico.
3305. **Theraps zonatus** (Meek).
Pacific slope of Isthmus of Tehuantepec, Mexico.
Cichlasoma zonatum Meek, Proc. Biol. Soc. Wash., XVIII, 1905, 245, Nilton, Oaxaca, Mexico.
Baiodon fasciatus Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1858, 408, Lake Nicaragua.
3306. **Theraps eigenmanni** (Meek).
Rio Tehuacan, Mexico.
Cichlasoma eigenmanni Meek, Field Col. Mus., Zool., III, 1902, 119, Rio Tehuacan, Mexico.
3307. **Theraps teapæ** (Evermann and Goldsborough).
Rio Teapa, Mexico.
Cichlasoma teapæ Evermann and Goldsborough, Bull. U. S. Fish Com., XXI, 1901, 156, fig. 6, Rio Teapa, Mexico.
3308. **Theraps frontalis** (Meek).
Turrubales, Costa Rica.
Cichlasoma frontale Meek, Field Col. Mus., Zool., VIII, 1909, 210, Turrubales, Costa Rica.
3309. **Theraps punctatum** (Meek).
Buenos Aires de Terraba, Costa Rica.
Cichlasoma punctatum Meek, Field Mus. Nat. Hist., Zool., VII, 1909, 210, Buenos Aires de Terraba, Costa Rica; name preoccupied in *Cichlasoma* but not in *Theraps*.
Theraps terraba Jordan and Evermann, Proc. Calif. Acad. Sci., 4th ser., XVI, Apr. 27, 1927, 507, substitute for *Cichlasoma punctatum* Meek, preoccupied.
3310. **Theraps gadovii** (Regan).
Atlantic slope of southern Mexico.
Cichlosoma gadovii Regan, Ann. Mag. Nat. Hist., 1905, 232, Motozongongo, Mexico.
3311. **Theraps milleri** (Meek).
El Rancho, Guatemala.
Cichlasoma milleri Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 142, El Rancho, Guatemala.

3312. *Theraps balteatus* (Gill and Bransford).
Great Lakes of Nicaragua.
Heros balteatus Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX,
1877, 184, Lake Nicaragua.
3313. *Theraps nicaraguensis* (Günther).
Great Lakes of Nicaragua.
Heros nicaraguensis Günther, Proc. Zool. Soc. Lond., 1864, 153, Lake
Nicaragua.
3314. *Theraps nigratus* (Meek).
Lake Nicaragua.
Cichlasoma nigratum Meek, Field Mus. Nat. Hist., Zool., VII, 1907,
128, Lake Nicaragua.
3315. *Theraps lentiginosus* (Steindachner).
Rivers of Mexico.
Heros lentiginosus Steindachner, Denks. Akad. Wiss. Wien, XXIII, 1864,
62, Pl. III, fig. 1, Mexico.
- Genus 1163. **PARAPETENIA** Regan.
Hypsophrys Agassiz, Proc., Bost. Soc. Nat. Hist., VI, 1858, 401 (*H.*
unimaculatus Agassiz); no description except that it resembles
Chrysophrys (*Sparus*) and has a large round black spot on the shoulder;
lakes of Nicaragua.
? *Parachromis* Agassiz, Proc., Bost. Soc. Nat. Hist., VI, 1858, 401 (*P.*
gulosus Agassiz); not described but said to resemble *Dentex*; lakes of
Nicaragua.
Parapetenia Regan, Ann. Mag. Nat. Hist., XVI, 7th ser., 1905, 324
(*Acara adpersum* Günther).
3316. *Parapetenia adpersa* (Günther).
Barbados.
Acara adpersum Günther, Cat., IV, 1862, 282, Barbados.
3317. *Parapetenia dovii* (Günther).
Great Lakes of Nicaragua.
Heros dovii Günther, Proc. Zool. Soc. Lond., 1864, 154, Lake Nicaragua.
3318. *Parapetenia managuense* (Günther).
Great Lakes of Nicaragua.
Heros managuensis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27),
392, 463, pl. 77, fig. 3, Lake Managua, Nicaragua.
3319. *Parapetenia motaguensis* (Günther).
Atlantic slope of Guatemala.
Heros motaguensis Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27),
391, 462, pl. 77, fig. 2, Lake Motagua, Guatemala.
3320. *Parapetenia friedrichstahli* (Heckel).
Lake Peten, Guatemala.
Heros friedrichstahli Heckel, Ann. Mus. Wien, II, 1840, 381, Lake
Peten, Guatemala.
3321. *Parapetenia multifasciata* (Regan).
Guatemala; British Honduras.
Cichlasoma multifasciatum Regan, Ann. Mag. Nat. Hist., 7th ser., XVI,
1905, 335, Lake Peten, Guatemala.
3322. *Parapetenia salvini* (Günther).
Atlantic slope of southern Mexico to Guatemala.
Heros salvini Günther, Cat., IV, 1862, 294, Rio de Santa Isabel, Guate-
mala.
Heros triagramma Steindachner, Denkschr. Akad. Wiss. Wien, XXIII,
1864, 70, Taf. 3, fig. 2, central Mexico.
3323. *Parapetenia urophthalma* (Günther).
Atlantic slope of southern Mexico to Guatemala; British Honduras
and Yucatan.
Heros urophthalmus Günther, Cat., IV, 1862, 291, Lake Peten.
3324. *Parapetenia istlana* (Jordan and Snyder).
Rio Balsas, Mexico.
Heros istlanus Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899,
144, fig. 21, Rio Ixtla at Puente de Ixtla, Mexico.

3325. *Parapetenia tetracantha* (Cuvier and Valenciennes). *Viajaca*.
Rivers of Cuba.
Centrarchus tetracanthus Cuvier and Valenciennes, Hist. Nat. Poiss.,
VII, 1831, 346 (460), Habana.
Chromis fusco-maculatus Guichenot, in Ramon de la Sagra, Hist. Ile
Cuba, Poiss., 1853, 78, pl. 2, fig. 3, Habana.
3326. *Parapetenia tetracantha torralbasi* (Eigenmann).
Cuba; Calabazar, Almendares River; San Cristobal; Los Palacios.
Heros tetracanthus torralbasi Eigenmann, Bull. U. S. Fish Com., XXII,
1902, 230, fig. 11, Calabazar, Cuba.
3327. *Parapetenia tetracantha grisea* (Eigenmann).
San Antonio, Cuba.
Heros tetracanthus griseus Eigenmann, Bull. U. S. Fish Com., XXII,
1902, 233, San Antonio, Cuba.
3328. *Parapetenia tetracantha lata* (Eigenmann).
San Juan, Cuba.
Heros tetracanthus latus Eigenmann, Bull. U. S. Fish Com., XXII,
1902, 234, San Juan, Cuba.
3329. *Parapetenia tetracantha cincta* (Eigenmann).
Paso Real, Cuba.
Heros tetracanthus cinctus Eigenmann, Bull. U. S. Fish Com., XXII,
1902, 234, fig. 16, Paso Real, Cuba.
3330. *Parapetenia parma* (Günther).
Mexico and Guatemala.
Heros parma Günther, Cat., IV, 1862, 285, Mexico and Guatemala.
3331. *Parapetenia nigricans* (Eigenmann).
Pinar del Rio, Cuba.
Heros nigricans Eigenmann, Bull. U. S. Fish Com., XXII, 1902, 235,
fig. 17, Pinar del Rio, Cuba.
3332. *Parapetenia steindachneri* (Jordan and Snyder).
Lower portion of the basin of the Rio Panuco and Rio Verde, Mexico.
Cichlasoma steindachneri Jordan and Snyder, Bull. U. S. Fish Com.,
XIX, 1899, 143, fig. 20, Rio Verde, Mexico.
3333. *Parapetenia bartoni* (Bean).
Upland portion of the Rio Verde in San Luis Potosi, Mexico.
Acara bartoni Bean, Proc. U. S. Nat. Mus., XV, 1892, 286, Pl. XLIV,
fig. 3, Huasteca Potosina, San Luis Potosi, Mexico.
3334. *Parapetenia labridens* (Pellegrin).
Upland portion of the Rio Verde in San Luis Potosi, Mexico.
Heros labridens Pellegrin, Bull. Mus. Hist. Nat. Paris, 1903, 122,
Huasteca, Potosi, Mexico.
3335. *Parapetenia beani* (Jordan). *Mojarra verde*.
Lowland streams of Sinaloa and Jalisco.
Heros beani Jordan, Proc. U. S. Nat. Mus., XI, 1888, 332, Rio Presidio,
near Mazatlan, Mexico.
3336. *Parapetenia tenuis* (Meek).
Atlantic slope of the isthmus of Tehuantepec; Achatol; Vera Cruz,
Mexico.
Cichlasoma tenue Meek, Field Mus. Nat. Hist., Zool., VII, 1906, 94,
Achatol, Vera Cruz, Mexico.
3337. *Parapetenia centralis* (Meek).
Pacific slope of Guatemala; Caballo Blanco.
Cichlasoma centrale Meek, Field Mus. Nat. Hist., Zool., VII, 1906, 94,
Caballo Blanco, Guatemala.
3338. *Parapetenia alfari* (Meek).
Atlantic slope of Costa Rica; Turrialba.
Cichlasoma alfari Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 148,
Turrialba, Costa Rica.
3339. *Parapetenia mento* (Vaillant and Pellegrin).
Southern Mexico.
Heros mento Vaillant and Pellegrin, Bull. Mus. Hist. Nat. Paris, 1902,
88, Rio Negro, southern Mexico.

3340. *Parapetenia trimaculata* (Günther).
Pacific coast streams of southern Mexico and Guatemala.
Heros trimaculatum Günther, Trans. Zool. Soc. Lond., VI, 1868, 461,
pl. 76 (Nov. 27), Chiapam and Huamuchal, Mexico.
- Genus 1164. **ARCHOCENTRUS** Gill.
Archocentrus Gill, Proc. Acad. Nat. Sci. Phila., XXIX, 1877, 186
(*Heros centrarchus* Gill and Bransford).
3341. *Archocentrus centrarchus* (Gill and Bransford).
Great Lakes of Nicaragua.
Heros centrarchus Gill and Bransford, Proc. Acad. Nat. Sci. Phila.,
XXIX, 1877, 185, Lake Nicaragua.
3342. *Archocentrus nigrofasciatus* (Günther).
Lakes Amatitlan and Atitlan, Guatemala.
Heros nigrofasciatus Günther, Trans. Zool. Soc. Lond., VI, 1868, 391,
452, pl. 74, fig. 3, Lakes Amatitlan and Atitlan.
3343. *Archocentrus spilurus* (Günther).
Rio Motagua and Lake Isabel, Guatemala.
Heros spilurus Günther, Cat., IV, 1862, 289, Lake Yzabal, Guatemala.
3344. *Archocentrus spinosissimus* (Vaillant and Pellegrin).
Rio Polochic, Guatemala.
Heros (Cichlasoma) spinosissimus Vaillant and Pellegrin, Bull. Mus.
Hist. Nat. Paris, 1902, 87, Rio Polochic, Guatemala.
3345. *Archocentrus immaculatus* (Pellegrin).
Rio Palochic, Guatemala.
Cichlasoma spinosissimum immaculatum Pellegrin, Mém. Soc. Zool.
France, XVI, 1903, 225, Rio Palochic, Guatemala.
- Genus 1165. **ASTATHEROS**⁸³ Pellegrin.
Astatheros Pellegrin, Mém. Soc. Zool. France, 1833, 205 (*Heros hetero-*
dontus Vaillant and Pellegrin).
Erythrichthys Meek, Field Mus. Nat. Hist., Zool., VII, 1907, 118, 121
(*Heros citrinellus* Günther); name twice preoccupied as *Erythrichthys*.
3346. *Astatheros heterodontus* (Vaillant and Pellegrin).
Isthmus of Tehuantepec, Mexico.
Heros heterodontus Vaillant and Pellegrin, Bull. Mus. Nat. Hist., Paris,
1902, 86, Isthmus of Tehuantepec.
3347. *Astatheros evermanni* (Meek).
Pacific slope of Isthmus of Tehuantepec.
Cichlasoma evermanni Meek, Field Col. Mus. Zool., V, 1904, 214, fig.
70, Rio Tehuantepec, Tehuantepec, Mexico.
3348. *Astatheros robertsoni* (Regan).
British Honduras.
Cichlasoma robertsoni Regan, Ann. Mag. Nat. Hist., ser. 7, XVI,
1905, 239, Stann Creek, British Honduras.
3349. *Astatheros lethrinus* (Regan).
Rio Iroquois, Costa Rica.
Cichlasoma lethrinus Regan, Ann. Mag. Nat. Hist., ser. 8, II, 1908, 462,
Rio Iroquois, Costa Rica.
3350. *Astatheros dorsatus* (Meek).
Lake Managua, Nicaragua.
Cichlasoma dorsatum Meek, Field Col. Mus. Nat. Hist., Zool., VII,
1907, 123, Lake Managua.
3351. *Astatheros longimanus* (Günther).
Lake Nicaragua.
Heros longimanus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27),
391, 453, pl. 72, fig. 2, Lake Nicaragua.
3352. *Astatheros altifrons* (Kner and Steindachner).
Panama and Colombia.
Heros altifrons Kner and Steindachner, Sitz. Bayer. Akad., 1863, 223,
Colombia.

⁸³ This group is usually united with the two large-lipped species *labiatus* and *lobochilus*, to which the name *Amphilophus* was given earlier. *Citrinellus* and *Erythræus* seem intermediate.

3353. *Astatheros lauræ* (Regan).
Tampico, Mexico.
Cichlasoma lauræ Regan, Ann. Mag. Nat. Hist., 8th ser., 2, 1908, 223,
Tampico, Mexico.
3354. *Astatheros margaritifera* (Günther).
Lake Peten, Guatemala.
Heros margaritifera Günther, Cat., IV, 1862, 287, Lake Peten.
Heros melanopogon Steindachner, Denks. Akad. Wiss. Wien, XXIII,
1864, 72, pl. 1, fig. 3, Central America.
3355. *Astatheros sexfasciatus* (Regan).
Guapote, Mexico.
Cichlosoma sexfasciatum Regan, Ann. Mag. Nat. Hist., (7), XVI, 1905,
230, Guapote, Mexico.
3356. *Astatheros septemfasciatus* (Regan).
Costa Rica.
Cichlosoma septemfasciatum Regan, Ann. Mag. Nat. Hist., II, ser. 8,
1908, 461, Rio Iroquois, Costa Rica.
3357. *Astatheros basilaris* (Gill and Bransford).
Lake Nicaragua.
Heros basilaris Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX,
1877, 182, Lake Nicaragua.
3358. *Astatheros rectangularis* (Steindachner).
Mexico.
Acara rectangularis Steindachner, Chromiden Mejicos, 1864, pl. 1, fig. 1,
1, Mexico.
3359. *Astatheros maculicauda* (Regan).
Atlantic slope of Guatemala and Panama.
Cichlosoma maculicauda Regan, Ann. Mag. Nat. Hist., XVI, ser. 7,
1905, 227, Lake Yzabal, Rio Motagua, and Rio Chagres.
3360. *Astatheros tuyrensis* (Meek and Hildebrand).
Rivers of Panama.
Cichlasoma tuyrensis Meek and Hildebrand, Field Mus. Nat. Hist.,
Zool., X, 1913, 89, Rio Tuyra, Boca de Cupa, Panama.
3361. *Astatheros oblongus* (Günther).
Rio Motagua; Guatemala.
Heros oblongus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27),
392, 464, Rio Motagua, Guatemala.
3362. *Astatheros montezuma* (Heckel).
Mexico.
Heros montezuma Heckel, Ann. Wiener Mus., II, 1840, 382, Mexico.
3363. *Astatheros globosum* (Miller).
Puerto Barrios, Guatemala.
Cichlasoma globosum Miller, Bull. Amer. Mus. Nat. Hist., XXIII,
1907, 114, fig. 4, Puerto Barrios, Guatemala.
3364. *Astatheros rostratum* (Gill and Bransford).
Great Lakes of Nicaragua.
Heros rostratus Gill and Bransford, Proc. Acad. Nat. Sci. Phila., XXIX,
1877, 181, Lake Nicaragua.
3365. *Astatheros hedricki* (Meek).
Large Atlantic slope rivers of Mexico, south of Vera Cruz.
Cichlasoma hedricki Meek, Field Col. Mus., Zool., V, 1904, 208, fig. 66,
Obispo, Vera Cruz, Mexico.
3366. *Astatheros octofasciatus* (Regan).
Atlantic slope, Isthmus of Tehuantepec to British Honduras.
Heros octofasciatus Regan, Ann. Mus. Hist. Nat. Geneva, Rev. Suisse,
Zool., 1903, 417, pl. 13, fig. 1, Mexico.
3367. *Antatheros granadense* (Meek).
Lake Nicaragua.
Cichlasoma granadense Meek, Field Mus. Nat. Hist., Zool., VII, 1907,
121, Lake Nicaragua, Nicaragua, Granada.

3368. *Astatheros citrinellus* (Günther).
Great Lakes of Nicaragua.
Heros citrinellus Günther, Proc. Zool. Soc. Lond., 1864, 153, Lake Nicaragua.
3369. *Astatheros erythræum* (Günther).
Great lakes of Nicaragua.
Heros erythræus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 391, 457, pl. 75, fig. 2, Lake Managua.
- Genus 1166. **AMPHILOPHUS** Agassiz.
Amphilophus Agassiz, Proc. Bost. Soc. Nat. Hist., VI, 1858, 401 (*A. frabeli* Agassiz); a large-lipped species from Lake Nicaragua not otherwise described, probably *labiatus*; these species, *labiatus* and *lobochilus*, have been placed in *Astatheros*, but the name *Amphilophus* has priority.
3370. *Amphilophus labiatus* (Günther).
Great lakes of Nicaragua.
Heros labiatum Günther, Proc. Zool. Soc. Lond., 1864, 27, Pl. IV, fig. 1, Lake Nicaragua.
3371. *Amphilophus lobochilus* (Günther).
Lake Managua, Nicaragua.
Heros lobochilus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 391, 457, pl. 75, fig. 1, Lake Managua, Nicaragua.
- Genus 1167. **THORICHTHYS** Meek.
Thorichthys Meek, Field Col. Mus., Zool., V, 1904, 222 (*T. ellioti* Meek).
3372. *Thorichthys ellioti* Meek.
Atlantic slope of Vera Cruz to Guatemala.
Thorichthys ellioti Meek, Field Col. Mus., Zool., V, 1904, 223, Motzoringo, Vera Cruz, Mexico.
3373. *Thorichthys callolepis* (Regan).
Atlantic slope of Isthmus of Tehuantepec, Mexico.
Heros callolepis Regan, Ann. Mag. Nat. Hist., ser. 7, XIII, 1904, 258, San Domingo de Guzman, Mexico.
3374. *Thorichthys aureus* (Günther).
Atlantic slope, Vera Cruz, Mexico, to Guatemala.
Heros aureus Günther, Cat., IV, 1862, 292, Lake Yzabal, Guatemala.
3375. *Thorichthys affinis* (Günther).
Lake Peten, Guatemala.
Heros affinis Günther, Cat., IV, 1862, 292, Lake Peten.
3376. *Thorichthys acutus* (Miller).
Small tributaries of the Rio Motagua, Guatemala.
Cichlasoma acutum Miller, Bull. Amer. Mus. Nat. Hist., XXIII, 1907, 117, fig. 6, Rio Tenedores, Guatemala.
3377. *Thorichthys helleri* (Steindachner).
Lowland streams of Mexico emptying into the Gulf south of Vera Cruz.
Heros helleri Steindachner, Denks. Akad. Wiss. Wien, XXIII, 1864, 64, Pl. IV, fig. 1, Rio Teapa, Tabasco, Mexico.
Heros maculipinnis Steindachner, loc. cit., 69, Pl. IV, fig. 2, Rio Zanopa, Mexico.
- Genus 1168. **HERICHTHYS** Baird and Girard.
Herichthys Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 25 (*H. cyanoguttatus* Baird and Girard).
3378. *Herichthys cyanoguttatus* Baird and Girard.
East slope of Mexico from Rio Grande to Rio Panuco.
Herichthys cyanoguttatus Baird and Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 25, Rio Grande, Brownsville, Tex.
Heros teporatus Fowler, loc. cit., LV, 1903, 321, Victoria, Tamaulipas.
3379. *Herichthys pavonaceus* (Garman).
Spring near Monclova, Coahuila, Mexico.
Heros pavonaceus Garman, Bull. Mus. Comp. Zool., VIII, 1881, 93, spring near Monclova, Coahuila, Mexico.

3380. *Herichthys bocourti* (Vaillant and Pellegrin).
Lake Isabel, Guatemala
Neotroplus bocourti Vaillant and Pellegrin, Bull. Mus. Hist. Nat., Paris, 1902, 85, Lake Isabel, Guatemala.
3381. *Herichthys carpintis* (Jordan and Snyder).
Rio Panuco, Mexico, and its lowland tributaries.
Neotroplus carpintis Jordan and Snyder, Bull. U. S. Fish Com., XIX, 1899, 146, fig. 22, Laguna de Carpinte, Tampico, Mexico.
3382. *Herichthys troscheli* (Steindachner).
Mexico.
Heros troscheli Steindachner, Ichthyologische Notizen, IV, 1867, 12, Mexico.
- Genus 1169. **TOMOCICHLA** Regan.
Tomocichla Regan, Ann. Mag. Nat. Hist., II, ser. 8, 1908, 463 (*Herichthys underwoodi* Regan).
3383. *Tomocichla underwoodi* (Regan).
Costa Rica.
Herichthys underwoodi Regan, Biol. Central Amer., Pisces, 1908, 30, Costa Rica.
3384. *Tomocichla geddesi* (Regan).
Southern Mexico.
Herichthys geddesi Regan, Ann. Mag. Hist., XVI, ser. 7, 1905, 436, southern Mexico.
- Genus 1170. **PETENIA** Günther.
Petenia Günther, Cat., IV, 1862, 301 (*P. splendida* Günther).
3385. *Petenia splendida* Günther.
Lake Peten, Guatemala; Montecristo; Frontera.
Petenia splendida Günther, Cat., IV, 1862, 301, Lake Peten, Guatemala.
- Genus 1171. **PARANEETROPLUS** Regan.
Paraneetroplus Regan, Ann. Mag. Nat. Hist., XVI, ser. 7, 1905, 436 (*P. bulleri* Regan).
3386. *Paraneetroplus bulleri* Regan.
Rio de Sarabia, Mexico.
Paraneetroplus bulleri Regan, Ann. Mag. Nat. Hist., XVI, ser. 7, 1905, 437, Rio de Sarabia, Mexico.
- Genus 1172. **NEETROPLUS** Günther.
Neetroplus Günther, Trans. Zool. Soc. Lond., VI, 1866, 469 (*N. nematopus* Günther).
3387. *Neetroplus sieboldii* (Kner and Steindachner).
New Granada, and from the Pacific slope of Panama.
Heros sieboldii Kner and Steindachner, Abhandl. Bayer Akad. Wiss., X, 1864, 13, pl. 2, fig. 2, Panama, Colombia.
3388. *Neetroplus nematopus* Günther.
Great lakes of Nicaragua.
Neetroplus nematopus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 392, 470, pl. 74, fig. 4, Lake Managua.
- Genus 1173. **HEROTILAPIA** Regan.
Herotilapia Regan, Ann. Mag. Nat. Hist., V, 38 (*Tilapia buettikoferi* Boulenger).
3389. *Herotilapia multispinosa* (Günther).
Great lakes of Nicaragua.
Heros multispinosus Günther, Trans. Zool. Soc. Lond., VI, 1868 (Nov. 27), 391, 453, pl. LXXIV, fig. 2, Lake Managua.
- Genus 1174. **ÆQUIDENS** Eigenmann and Bray.
Æquidens Eigenmann and Bray, Ann. N. Y. Acad. Sci., 1894, 616 (*Acara tetramerus* Heckel).
3390. *Æquidens cœruleopunctata* (Kner and Steindachner).
Panama to northwest Ecuador.
Acara cœruleopunctata Kner and Steindachner, Sitz. Bayer. Akad., 1863, 222, northwest Ecuador.

Genus 1175. **GEOPHAGUS** Heckel.

Geophagus Heckel, Ann. Mus. Wien, II, 1840, 383 (*G. magasema* Heckel = *Sparus surinamensis* Bloch).

Mesops Günther, Cat., IV, 1862, 311. (*Geophagus cupido* Heckel).

Satanoperca Günther, loc. cit., 312 (*Geophagus demon* Heckel).

Subgenus **SATANOPERCA** Günther.3391. **Geophagus crassilabris** Steindachner.

Panama.

Geophagus (*Satanoperca*) *crassilabris* Steindachner, Sitz. Akad. Wiss. Wien, 1876, 74, 65, Pl. VII, Panama.

Order UU. **PHARYNGOGNATHI**Family 251. **LABRIDÆ**Genus 1176. **CENTROLABRUS** Günther. *Rock cooks.*

Centrolabrus Günther, Cat., IV, 1862, 92 (*Labrus exoletus* Linnæus).

3392. **Centrolabrus exoletus** (Linnæus). *Rock cook.*

Coast of northern Europe south to Cornwall; Greenland.

Labrus exoletus Linnæus, Syst. Nat., Ed. X, 1758, 287, Atlantic Ocean.

Labrus pentacanthus Lacépède, Hist. Nat. Poiss., III, 1803, 503; after Linnæus.

Crenilabrus microstoma Couch, in Thompson, Proc. Zool. Soc. London, 1837, 55, Cornwall.

Genus 1177. **TAUTOGOLABRUS** Günther. *Cunners.*

Tautogolabrus Günther, Cat., IV, 1862, 89 (*Ctenolabrus bergall* Günther = *Labrus adpersus* Walbaum).

3393. **Tautogolabrus adpersus** (Walbaum). *Cunner; Chogset; Blue perch; Bergall; Berg-gyllt; Nibbler; Conner; Gall Bengal.*

Atlantic coasts of North America from Labrador to Sandy Hook.

Labrus adpersus Walbaum, Artdi Piscium, 1792, 254, no locality; after Bergall of Schöpf.

Tautoga niger Mitchill, Report, in part, in Fishes of New York, 1814, 23, New York.

Tautoga carulea Mitchill, Report, loc. cit., 1814, 24, New York.

Labrus chogset Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 402, pl. 3, fig. 2, New York.

Labrus chogset fulva Mitchill, loc. cit., 1815, 403, New York.

Ctenolabrus unnotatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839, 174 (239), New York.

Ctenolabrus bergall Günther, Cat., IV, 1862, 90, Canada.

Genus 1178. **TAUTOGA** Mitchill. *Tautogs.*

Hiatula Lacépède, Hist. Nat. Poiss., II, 1800, 522; name preoccupied.

Tautoga Mitchill, Rept. Fishes New York, 1814, 23 (*T. niger* Mitchill = *Labrus tautoga* Mitchill = *Labrus onitis* Linnæus).

3394. **Tautoga onitis** (Linnæus). *Tautog; Blackfish; Oysterfish; Tautoga; Smooth blackfish; Cub; Sea dog.*

Atlantic coast of United States; Cape Ann to Charleston.

Labrus onitis Linnæus, Syst. Nat., Ed. X, 1758, 286, locality unknown.

Labrus hiatula Linnæus, Syst. Nat., Ed. XII, 1766, 475, Carolinas.

Labrus carolinus Bonnaterre, Tableau Encycloped. et Method., Ichthyologie, 1788, 113, Carolinas.

Labrus subfucus Walbaum, Artdi Pisc., 1792, 254; after Schöpf.

?*Labrus tassellatus* Bloch, Naturgesch. Ausl. Fische, VI, 1792, pl. 8, Norway.

Hiatula gardeniana Lacépède, Hist. Nat. Poiss., II, 1800, 522, Carolinas.

Labrus americanus Bloch and Schneider, Syst. Ichth., 1801, 261; after Schöpf.

Labrus tautoga Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 398, Long Island; Rhode Island; Cape Cod; Sandy Circle.

Tautoga fusca Mitchill, Rept. Fish. N. Y., 1814, 23, New York.

Tautoga rubens Mitchill, loc. cit., 23, New York.

Tautoga alia Mitchill, loc. cit., 23, New York.

Tautoga niger Mitchill, loc. cit., 23, New York.

Genus 1179. LACHNOLAIMUS Cuvier and Valenciennes. *Capitaines*.

Lachnolaimus Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839, 200 (274) (*L. aigula* Cuvier and Valenciennes=*Labrus maximus* Walbaum).

Lachnolæmus Günther; corrected spelling.

3395. Lachnolaimus maximus (Walbaum). *Capitaine; Perro perro; Hogfish*. West Indies, north to Key West and the Bermudas.

Suillus Catesby, Nat. Hist. Carol., II, 1743, 15, pl. 15; no locality; probably Bahamas.

Labrus maximus Walbaum, Artedi Pisc., 1792, 261, no locality; after Catesby.

Lachnolaimus suillus Cuvier, Règne Animal, ed. 2, II, 1829, 257; after Catesby.

Lachnolaimus aigula Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839, 202 (277), pl. 378, St. Bartholomew.

Lachnolaimus dux Cuvier and Valenciennes, loc. cit., 208 (285), Martinique.

Lachnolaimus caninus Cuvier and Valenciennes, loc. cit., 210 (288), St. Thomas; San Domingo.

Lachnolaimus psittacus Cuvier and Valenciennes, loc. cit., 212 (291); Porto Rico.

Genus 1180. BODIANUS Bloch.

Bodianus Bloch, Nat. Ausl. Fische, IV, 1790, 31, 33 (*B. bodianus* Bloch=*Labrus rufus* Linnaeus); in part; type by tautonymy; not by first restriction to species of *Cephalopholis*.

Harpe Lacépède, Hist. Nat. Poiss., IV, 1803, 426 (*H. cæruleo-aureum* Lacépède=*Labrus rufus* Linnaeus).

Cossyphus Cuvier and Valenciennes, loc. cit., XIII, 1839, 102 (*Bodianus bodianus* Bloch); name twice preoccupied.

Crenilabrus Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839 (*Lutianus verres* Bloch=*Labrus rufus* Linnaeus); name preoccupied.

3396. Bodianus rufus (Linnaeus). *Ladyfish; Spanish ladyfish; Spanish hogfish; Pudiano; Perro colorado*.

West Indies, north to Key West, south to Rio de Janeiro.

Labrus rufus Linnaeus, Syst. Nat., Ed. X, 1758, 284, America; after Catesby.

Pudiano vermelho Maregrave, Hist. Bras., 1648, 145, Brazil.

Turdus flavus Catesby, Nat. Hist. Carolina, II, 1743, 11, pl. 11, fig. 1, Bahamas.

Perro colorado Parra, Descr. Dif. Piez. Hist. Nat. Cuba, 1787, 3, lam. 3, fig. 1, Habana.

?*Bodianus bodianus* Bloch, Naturgesch. Ausl. Fische, IV, 1790, 33, Brazil.

?*Lutjanus verres* Bloch, loc. cit., V, 1791, 9, locality uncertain.

?*Sparus falcatus* Bloch, loc. cit., 20, Martinique; after Plumier.

Labrus semiruber Lacépède, Hist. Nat. Poiss., III, 1802, 428, Rio Janeiro.

Bodianus blochii Lacépède, loc. cit., IV, 1803, 279; after Bloch.

Harpe coerulco-aureus Lacépède, loc. cit., 426, pl. 8, fig. 2, Martinique.

3397. Bodianus diplotænia (Gill).

Pacific coast of tropical America; Cape San Lucas; Panama; Revillagigedo Islands; Mazatlan.

Harpe diplotænia Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 140, Cape San Lucas; female.

Harpe pectoralis Gill, loc. cit., 141, Cape San Lucas; male.

3398. Bodianus pulchellus (Poey).

Cuba.

Cossyphus pulchellus Poey, Memorias, II, 1860, 208, Habana.

Genus 1181. DECODON Günther.

Decodon Günther, Cat., IV, 1862, 101 (*Cossyphus puellaris* Poey).

3399. Decodon puelliaris (Poey).

West Indies; Cuba; Barbados; Snapper Banks off Pensacola, Fla.

Cossyphus puellaris Poey, Memorias, II, 186, 2101, Habana.

Genus 1182. PIMELOMETOPON Gill. Fatheads.

Pimelometopon Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 58 (*Labrus pulcher* Ayres).

3400. Pimelometopon pulcher (Ayres). California redfish; Fathead; Sheepshead.

Southern California, from Point Conception to Ascension Island, Lower California.

Labrus pulcher Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 3, San Diego, Calif.

Genus 1183. CLEPTICUS Cuvier.

Clepticus Cuvier, Règne Anim., ed. 2, II, 1829, 261 (*Rabirubia genizara* Parra=*Brama parræ* Bloch and Schneider).

3401. Clepticus parræ (Bloch and Schneider). Genizara; Janissary; Creole. West Indies.

Rabirubia genizara Parra, Dif. Piezas de Hist. Nat. Cuba, 1787, 44, pl. 21, fig. 1, Habana; author not binomial.

Brama parræ Bloch and Schneider, Syst. Ichth., 1801, 100, Habana.

Family 252. CORIDÆ**Genus 1184. IRIDIO⁸⁴ Jordan and Evermann. Doncellas.**

Halichæres Rüpell, Neue Wirbelthiere, Fische, 1835, 17 (*bimaculatus*); not *Halichærus* Nilsson, 1820, a genus of seals.

Hermiulus Swainson, Nat. Hist. Classn. Fishes, II, 1839 228, (*Labrus guttatus* Bloch); as restricted by Bonaparte (1841); restricted by Swain (1882) to *Cheilio auratus* Quoy and Gaimard.

Parajulis Bleeker, Ned. Tijdschr. Dierk., II, 1865, 251 (*Julis pacilopterus* Temminck and Schlegel).

Iridio Jordan and Evermann, Check List, 1895, 412 (*Julis dimidiotus* Agassiz=*Labrus cyanocephalus* Bloch).

3402. Iridio radiata (Linnæus). Puddingwife; Doncella; Pudiano verde.

West Indies, Brazil north to Florida Keys, Bermuda, and St. Paul Rocks.

Labrus radiatus Linnæus, Syst. Nat., Ed. X, 1758, 288, Bahamas; based on Catesby.

Pudiano verde Marcgrave, Hist. Pisc. Brasil., 1648, 146, Brazil.

Turdus oculo-radiato Catesby, Nat. Hist. Carolina, II, 1743, 12, pl. 12, fig. 1, Bahamas.

Doncella Parra, Desc. Dif. Piez. Hist. Nat. Cuba, 1787, 95, lam. 37, fig. 1, Habana.

Labrus brasiliensis Bloch, Naturgesch. Ausl. Fische, V, 1791, 125, Brazil.

Julis crotaphus Cuvier, Règne Anim., ed. 2, II, 1829, 258; after Parra.

Julis cyanostigma Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839, 286 (391), Martinique.

Julis opalina Cuvier and Valenciennes, loc. cit., 287 (392), Martinique.

Julis patatus Cuvier and Valenciennes, loc. cit., 291 (398), Martinique; Cuba.

Julis principis Cuvier and Valenciennes, loc. cit., 294 (402), Bahia.

3403. Iridio bivittata⁸⁵ (Bloch). Slippery dick; Doncella.

West Indies, north to Beaufort, N. C., and south to Brazil.

Labrus bivittatus Bloch, Naturgesch. Ausl. Fische, V, 1791, 133, from a painting by Plumier made at Martinique.

Sparus radiatus Linnæus, Syst. Nat., ed. XII, 1766, 472, Carolinas.

Labrus psittaculus Lacépède, Hist. Nat. Poiss., III, 1800, 452, Martinique; after Plumier.

Julis humeralis Poey, Memorias, II, 1860, 212, Cuba.

Chærojulis grandisquamis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 206, Beaufort, N. C.

Chærojulis arangoi Poey, Enumeratio, 1876, 109, Habana.

PlatyGLOSSUS florealis Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 287, Pensacola, Fla.

⁸⁴ This genus is very close to the Old World genus *Halichæres*.

⁸⁵ Regarded by some authors as the young of *Iridio radiata*.

3404. *Iridio cyanocephalus* (Bloch).
West Indies, south to Brazil.
Labrus cyanocephalus Bloch, Naturgesch. Ausl. Fische, V, 1791, 139,
location unknown; Museum of Link.
Julis dimidiatus Agassiz, in Spix, Pisc. Bras., 1829, 96, pl. 53, Brazil.
Julis internasalis Poey, Memorias, II, 1861, 421, Cuba.
3405. *Iridio maculipinna* (Müller and Troschel).
West Indies to Beaufort, N. C.
Julis maculipinna Müller and Troschel, in Schomburgk, Hist. Barbados,
1848, 674, Barbados.
3406. *Iridio garnoti* (Cuvier and Valenciennes).
West Indies, Cuba, Martinique, St. Croix.
Julis garnoti Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839,
285 (390), Martinique.
Julis cinctus Poey, Memorias, II, 1860, 211, Cuba.
Julis ruptus Poey, loc. cit., 212, Cuba.
3407. *Iridio kirschii* Jordan and Evermann.
Cuba to Brazil.
Julis crotaphus Cuvier and Valenciennes, Hist. Nat. Poiss., XIII,
1839, 289 (395), Bahia; not of Cuvier.
Iridio kirschii Jordan and Evermann, Check List, 1895, 413, Bahia,
Brazil.
3408. *Iridio poeyi* (Steindachner).
Surinam.
Platygllossus poeyi Steindachner, Ichth. Notizen, VI, 1867, 49, Surinam.
3409. *Iridio caudalis* (Poey).
Cuba.
Julis caudalis Poey, Memorias, II, 1860, 213, Habana.
3410. *Iridio pictus* (Poey).
West Indies, north to the Snapper Banks off Pensacola, Fla.
Julis pictus Poey, Memorias, II, 1860, 214, Cuba.
3411. *Iridio elegans* Bean.
Bermudas to Curaçao.
Iridio elegans Bean, Field Mus. Nat. Hist., Zool., VII, 1906, 65, fig. 6,
Nonesuch Island, Bermudas.
3412. *Iridio similis* Nichols.
Bermudas.
Iridio similis Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 61,
Bermudas.
3413. *Iridio frenatus* Nichols.
Bermuda.
Iridio frenatus Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 61,
Bermuda.
3414. *Iridio decoratus* Bean.
Bermudas.
Iridio decoratus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 29, Nonesuch
Island, Bermudas.
3415. *Iridio meyeri* Bean.
Bermudas.
Iridio meyeri Bean, Proc. Biol. Soc. Wash., XIX, 1906, 29, Nonesuch
Island, Bermudas.
3416. *Iridio microstomus* Bean.
Bermudas.
Iridio microstomus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 30, None-
such Island, Bermudas.
3417. *Iridio semicinctus* (Ayres). *Kelpfish*; *Señorita*.
Southern California, Santa Barbara Islands to Cedros Island.
Julis semicinctus Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 32,
Cerro [Cedros] Island, off coast of Lower California.
3418. *Iridio dispilus* (Günther).
Pacific coast of tropical America, Mazatlan to Panama.
Platygllossus dispilus Günther, Proc. Zool. Soc. Lond., 1861, 25, Panama.

3419. *Iridio nicholsi* (Jordan and Gilbert).
Revillagigedo and Galapagos Islands.
PlatyGLOSSUS nicholsi Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 231, Braithwaite Bay, Socorro Island.
3420. *Iridio sellifer* (Gilbert).
Revillagigedo Archipelago.
Halichares sellifer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 67, Clarion Island.
- Genus 1185. *OXYJULIS* Gill. *Señoritas*.
Oxyjulis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 330 (*Julis modestus* Girard).
3421. *Oxyjulis californicus* (Günther). *Señorita*.
Coast of southern California; common from Monterey to Guadalupe Island.
Julis modestus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 151, San Diego, Monterey, San Miguel; preoccupied.
Halichares californicus Günther, Ann. Mag. Nat. Hist., ser. 3, VIII, 1861, 386, name only; substitute for *Julis modestus*, preoccupied.
- Genus 1186. *PSEUDOJULIS* Bleeker.
Pseudojulis Bleeker, Proc. Zool. Soc. Lond., 1861, 412 (*P. girardi* Bleeker).
- Subgenus *PSEUDOJULIS*.
3422. *Pseudojulis inornatus* Gilbert.
Pacific coast of Mexico; only the type known.
Pseudojulis inornatus Gilbert, Proc. U. S. Nat. Mus., XI II, 1890, 67, Pacific coast of Mexico.
3423. *Pseudojulis melanotis* Gilbert.
Pacific coast of Mexico; only the type known.
Pseudojulis melanotis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 66, Pacific coast of Mexico.
- Genus 1187. *EMMEEKIA* Jordan and Evermann.
Emmeekia Jordan and Evermann, Check List, 1895, 413 (*Pseudojulis venustus* Jenkins and Evermann).
3424. *Emmeekia venusta* (Jenkins and Evermann).
Gulf of California.
Pseudojulis venustus Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 145, Guaymas, Sonora, Mexico.
- Genus 1188. *JULIDIO* Jordan and Evermann.
Julidio Jordan and Evermann, Check List, 1895, 413 (*Pseudojulis adustus* Gilbert).
3425. *Julidio adustus* (Gilbert).
Revillagigedo Islands.
Pseudojulis adustus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 66, Socorro Island.
3426. *Julidio notospilus* (Günther).
Pacific coast of Mexico, Panama, and Clarion Island of Revillagigedo Archipelago.
Pseudojulis notospilus Günther, Proc. Zool. Soc. Lond., 1864, 26, Panama.
- Genus 1189. *THALASSOMA* Swainson.
Thalassoma Swainson, Nat. Hist. Class. Fishes, II, 1839, 224 (*Labrus purpureus* Rüppell).
Chlorichthys Swainson, loc. cit., 232 (*Labrus bifasciatus* Bloch).
Julis Günther, not of Cuvier and Valenciennes.

- 3427. *Thalassoma bifasciatum* (Bloch).**
West Indies; Tortugas; Jamaica; Cuba; San Domingo; and Martinique.
? *Labrus bifasciatus* Bloch, Naturgesch. Ausl. Fische, V, 1791, 131, West Indies.
Labrus bifasciatus torquatus Bloch and Schneider, Syst. Ichth., 1801, 243, Antilles; after Gronow.
Julis detorsor Cuvier and Valenciennes, Hist. Nat. Poiss., XIII, 1839, 298 (408), San Domingo.
Labrus ornatus Gronow, Syst. Nat., ed. Gray, 1854, 83, Antilles.
Julis gillianus Poey, Memorias, II, 1860, 214, Cuba.
? *Julis nitida* Günther, Cat., IV, 1862, 190, Jamaica.
- 3428. *Thalassoma socorroensis* Gilbert.**
Revillagigedo Archipelago.
Thalassoma socorroense Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 69, Socorro Island.
- 3429. *Thalassoma nitidum* (Günther).**
West Indies; Jamaica; Tortugas.
Julis nitida Günther, Cat., IV, 1862, 190, Jamaica.
Julis nitidissima Goode, Am. Jour. Sci. Arts, XIV, 1877, 293, Bermuda.
- 3430. *Thalassoma grammaticum* Gilbert.**
Revillagigedo Archipelago.
Thalassoma grammaticum Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 68, Socorro Island; Clarion Island.
- 3431. *Thalassoma virens* Gilbert.**
Revillagigedo Archipelago.
Thalassoma virens Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 68, Socorro Island.
- 3432. *Thalassoma lucasanum* (Gill).**
Gulf of California, Cape San Lucas to Mazatlan and Tres Marias Islands; Panama Bay.
Julis lucasanus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 142, Cape San Lucas.
- 3433. *Thalassoma steindachneri* (Jordan).**
Acapulco, Pacific coast of Mexico.
Thalassoma steindachneri Jordan, Rept. U. S. Fish Com., XV, 1887, 654, Acapulco; after Steindachner.
Julis melanochir Steindachner, Ichth. Beitr., III, 1875, 63, Acapulco; not of Bleeker.
- Genus 1190. *DORATONOTUS* Günther.**
Doratonotus Günther, Cat., IV, 1862, 124 (*D. megalepis* Günther).
- 3434. *Doratonotus megalepis* Günther.**
West Indies, north to Key West.
Doratonotus megalepis Günther, Cat., IV, 1862, 125, St. Christopher.
Doratonotus thalassinus Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 28, Key West, Fla.
- 3435. *Doratonotus decoris* Evermann and Marsh.**
Porto Rico.
Doratonotus decoris Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899, 354, Ponce, Porto Rico.
- 3436. *Doratonotus boekei* Metzelaar.**
Caribbean Sea.
Doratonotus boekei Metzelaar, Trop. Atlant. Visschen, 1919, 107, fig. 31, Curaçao, Bonaire.
- Genus 1191. *XYRULA* Jordan.**
Xyrula Jordan, Rept. U. S. Fish Com., XV, 1887, 656 (*Xyrichthys jessie* Jordan).
- 3437. *Xyrula jessie* (Jordan).**
Snapper Banks off Tampa, Fla.
Xyrichthys jessie Jordan, Proc. U. S. Nat. Mus., X, 1887, 698, off Tampa Bay, Fla.

Genus 1192. NOVACULICHTHYS Bleeker.

Novaculichthys Bleeker, Proc. Zool. Soc. Lond., 1861, 414 (*Labrus æniurus* Bloch).

Dimalacocentrus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 223 (*Novacula kallasoma* Bleeker).

3438. *Novaculichthys martinicensis* (Cuvier and Valenciennes).

Martinique.

Xyrichthys martinicensis Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 37 (49), Martinique.

Xyrichthys vitta Cuvier and Valenciennes, loc. cit., 38 (51), no locality.

3439. *Novaculichthys infirmus* (Bean).

Cozumel, Yucatan.

Xyrichthys infirmus Bean, Bull. U. S. Fish Com., VIII, 1888, 199, pl. 29, fig. 2, Cozumel.

3440. *Novaculichthys rosipes* (Jordan and Gilbert).

Key West; Florida; Tortugas.

Xyrichthys rosipes Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 27, Key West, Tortugas.

3441. *Novaculichthys ventralis* (Bean).

Cozumel Island, Yucatan.

Xyrichthys ventralis Bean, Bull. U. S. Fish Com., VIII, 1888, 198, pl. 29, fig. 1, Cozumel, Yucatan.

Genus 1193. XYRICHTHYS Cuvier. *Razorfishes*.

Xyrichthys Cuvier, Mém. Mus. d'Hist. Nat., I, 1815, 324, 329 (*X. novacula* Cuvier).

Novacula Cuvier, Règne Anim., Ed. I, 1817, 265 (*Coryphæna novacula* Linnæus).

Amorphocephalus Bowdich, Exc. Madeira, 1825, 238 (*A. granulatus* Bowdich).

3442. *Xyrichthys psittacus* (Linnæus). *Razorfish*.

West Indies, north to Pensacola and Charleston.

Coryphæna psittacus Linnæus, Syst. Nat., Ed. XII, 1766, 448, Charleston, S. C.

Coryphæna lineata Gmelin, Syst. Nat., 1788, 1195, Charleston, S. C.

Xyrichthys venustus Poey, Enumeratio, 1876, 110, Martinique.

Xyrichthys vermiculatus Poey, Memorias, II, 1860, 215, Cuba.

3443. *Xyrichthys mundiceps* Gill.

Cape San Lucas, Lower California.

Xyrichthys mundiceps Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 143, Cape San Lucas.

3444. *Xyrichthys modestus* Poey.

Cuba.

Xyrichthys modestus Poey, Repertorio, II, 1867, 238, Cuba.

3445. *Xyrichthys binghami* Mowbray.

Bahama Islands.

Xyrichthys binghami Mowbray, Marine Life, I, Apr. 2, 1925, 1, Cay Sal Bank, Bahamas.

Genus 1194. INIISTIUS Gill.

Iniistius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 143 (*Xyrichthys pavo* Cuvier and Valenciennes).

3446. *Iniistius pavoninus* (Cuvier and Valenciennes).

Hawaii and Pacific coast of Mexico.

Xyrichthys pavoninus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 63, Hawaii.

Iniistius mundicarpus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 145, Cape San Lucas.

Genus 1195. BERMUDICHTHYS Nichols.

Bermudichthys Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 62 (*B. subfurcatus* Nichols).

3447. *Bermudichthys subfurcatus* Nichols.

Bermuda.

Bermudichthys subfurcatus Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 62, Bermuda.

Family 253. SPARISOMIDÆ

Genus 1196. CRYPTOTOMUS Cope.

Cryptotomus Cope, Trans. Amer. Philos. Soc., XIV, 1870, 462 (*C. roseus* Cope).

Nicholsina Fowler, Copeia, No. 14, 1915, 3 (*Cryptotomus beryllinus* Jordan and Swain).

Subgenus CRYPTOTOMUS Cope.

3448. *Cryptotomus roseus* Cope.

West Indies, south to Brazil.

Cryptotomus roseus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 462, St. Martins, West Indies.

3449. *Cryptotomus crassiceps* Bean.

Bermudas.

Cryptotomus crassiceps Bean, Proc. Biol. Soc. Wash., XIX, 1906, 32, Coopers Island, Bermudas.

Subgenus NICHOLSINA Fowler.

3450. *Cryptotomus beryllinus* Jordan and Swain. *Parrotfish*.

Florida Keys, north to New Jersey, south to Rio Janeiro.

Cryptotomus beryllinus Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 101, Habana.

Sparisoma sp. Bean, Bull. U. S. Fish Com., VII, 1887, 137, Somers Point, N. J.

3451. *Cryptotomus dentiens* (Poey).

Cuba.

Scarus dentiens Poey, Memorias, II, 1861, 422, Cuba.

3452. *Cryptotomus retractus* (Poey).

West Indies, north to Pensacola.

Calliodon retractus Poey, Synopsis, 1868, 245, Habana.

3453. *Cryptotomus ustus* (Cuvier and Valenciennes).

West Indies, north to Charleston, south to Bahia.

Callyodon ustus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 212 (286), pl. 405, Brazil.

3454. *Cryptotomus auropunctatus* (Cuvier and Valenciennes).

San Domingo.

Callyodon auro-punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 215 (290), Santo Domingo.

Genus 1197. LEPTOSCARUS Swainson.

Leptoscarus Swainson, Nat. Hist. Classn. Fishes, 1839, 11 (*Scarus vaigiensis* Quoy and Gaimard = *Scarus spinidens* Cuvier and Valenciennes).

Calotomus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 70 (*C. xenodon* Gilbert).

3455. *Leptoscarus xenodon* (Gilbert).

Socorro Island, Revillagigedo Archipelago.

Calotomus xenodon Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 70, Socorro Island, Revillagigedo Islands.

Genus 1198. SPARISOMA Swainson. *Viejas*.

Sparisoma Swainson, Nat. Hist. Classn. Fishes, etc., II, 1839, 227 (*Scarus abildgardii* Bloch).

Euscarus Jordan and Evermann, Check List, 1895, 416 (*Labrus cretensis* Linnaeus).

Subgenus SPARISOMA Swainson.

3456. *Sparisoma xystrodon* Jordan and Swain.

West Indies, north to Key West.

Sparisoma xystrodon Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 99, Key West; Habana.

3457. *Sparisoma atomarium* (Poey).

Cuba.

Scarus atomarius Poey, Memorias, II, 1861, 423, Habana.

3458. *Sparisoma radians* (Cuvier and Valenciennes).
West Indies, south to Brazil; Tortugas.
Scarus radians Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 153 (206), Brazil.
Scarus lacrimosus Poey, Memorias, II, 1861, 422, Cuba.
3459. *Sparisoma hoplomystax* (Cope).
West Indies, from Key West to Bahia.
Scarus hoplomystax Cope, Trans. Amer. Phil. Soc., XIV, 1871, 462, St. Martins, West Indies.
Sparisoma cyanolene Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 98, Key West, Fla.
3460. *Sparisoma niphobles* Jordan and Bollman.
Bahamas; Tortugas; Cape Florida; Key West; Porto Rico; abundant about Porto Rico.
Sparisoma niphobles Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888, 551, Green Turtle Cay, Bahamas.
3461. *Sparisoma aurofrenatum* (Cuvier and Valenciennes).
West Indies.
Scarus aurofrenatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 142 (191), San Domingo.
Scarus miniofrenatus Poey, Memorias, II, 1860, 279, Cuba.
3462. *Sparisoma oxybrachium* (Poey).
Cuba.
Scarus oxybrachius Poey, Synopsis, 1868, 342, Habana.
3463. *Sparisoma abildgaardi* (Bloch). *Red parrotfish; Roseback parrot.*
West Indies south to Brazil; Tortugas; generally common.
Sparus abildgaardi Bloch, Nat. Ausl. Fische, V, 1791, 22, pl. 259, America.
Vieja Parra, Descr. Dif. Piezas Hist. Nat., 1787, 58, pl. 28, fig. 2, Cuba.
Scarus coccineus Bloch and Schneider, Syst. Ichth., 1801, 289, Cuba; after Parra.
Sparus aureo-ruber Lacépède, Hist. Nat. Poiss., IV, 1803, 55, 163, Martinique; on a drawing by Plumier.
Scarus amplius Ranzani, Nov. Comm. Ac. Scient. Inst. Bonon., V, 1842, 324, pl. 25, Brazil (fide Guichenot).
Scarus erythrinoides Guichenot, Mem. Soc. Sci. Nat. Cherbourg, XI, 1865, 10, San Domingo.
3464. *Sparisoma distinctum* (Poey).
Cuba.
Scarus distinctus Poey, Memorias, II, 1861, 423, Habana.
3465. *Sparisoma chrysopterus* (Bloch and Schneider). *Blue parrotfish; Vieja.*
West Indies, south to Bahia.
Scarus chrysopterus Bloch and Schneider, Syst. Ichth., 1801, 286, pl. 57, American seas.
Vieja Parra, Descr. Dif. Piezas Hist. Nat., 1787, 59, pl. 28, fig. 4, Cuba.
Scarus chloris Bloch and Schneider, Syst. Ichth., 1801, 289, Cuba.
Scarus lateralis Poey, Memorias, II, 1860, 219, Cuba.
?Scarus spinidens Guichenot, Mem. Soc. Sci. Nat. Cherbourg, XI, 1865, 15, Bahia.
3466. *Sparisoma lorito* Jordan and Swain.
West Indies.
Sparisoma lorito Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 95, Habana.
3467. *Sparisoma viride* (Bonnaterre). *Green parrotfish.*
Tortugas to West Indies.
Scarus viridis Bonnaterre, Enc. Meth., 1788, 96, Bahamas; after Catesby.
Piscis viridis bahamensis Catesby, Nat. Hist. Car., II, 1743, 29, pl. 29, Bahamas.
Scarus melanotis Bleeker, Verslagen Koning. Akad. Wetenschappen, XIV, 1862, 126, St. Croix.
Scarus (Catesby) Lacépède, Hist. Nat. Poiss., IV, 1803, 16; after Catesby.

3468. *Sparisoma flavescens* (Bloch and Schneider). *Mud parrot*; *Vieja colorada*; *Vieja muger*; *Parrotfish*.
West Indies; Key West to Rio Janeiro; Woods Hole, Mass.
Scarus flavescens Bloch and Schneider, Syst. Ichth., 1801, 290, Cuba; after Parra.
Vieja Parra, Deser. Dif. Piezas Hist. Nat., 1787, 59, pl. 28, fig. 4, Cuba.
Scarus squalidus Poey, Memorias, II, 1860, 218, Cuba.
3469. *Sparisoma rubripinne* (Cuvier and Valenciennes).
West Indies.
Scarus rubripinnis Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 147 (199), San Domingo.
Scarus virens Cuvier and Valenciennes, loc. cit., 1839, 150 (203), Porto Rico; Martinique.
Scarus circumnotatus Poey, Memorias, II, 1861, 423, Cuba.
Scarus truncatus Poey, Synopsis, 1868, 339, Cuba.
? *Scarus emarginatus* Poey, Synopsis, 1868, 340, Cuba.
3470. *Sparisoma strigatum* (Günther).
Scarus strigatus Günther, Cat., IV, 1862, 212, locality unknown, but as the genus *Sparisoma* is chiefly confined to American waters, this species is probably American.
3471. *Sparisoma frondosum* (Cuvier).
West Indies, south to Brazil.
Scarus frondosus Cuvier, in Agassiz, Spix, Pisc. Brasil., 1829, 98, Bahia.
Scarus aracanga Günther, Cat., IV, 1862, 209, Jamaica.
3472. *Sparisoma brachiale* (Poey).
Cuba.
Scarus brachialis Poey, Memorias, II, 1861, 345, Cuba.
? *Scarus humeralis* Poey, loc. cit., 422, Habana.
3473. *Sparisoma maschalespilos* (Bleeker).
Surinam.
Scarus maschalespilos Bleeker, Verslagen Koning. Akad. Vet., XIV, 1862, 127, Surinam.

Family 254. SCARIDÆ

Genus 1199. SCARUS Forskål.

- Callyodon* Gronow, Zoophyl., I, 1763, 72 (*Scarus croicensis* Bloch); work not binomial.
Scarus Forskål, Deser. Anim., 1775, 25 (*Scarus croicensis* Bloch); not of Gronow.
Hemistoma Swainson, Classn. Fish., etc., II, 1839, 226 (*Scarus pepo* Bennett = *H. reticulata* Swainson).
Petronason Swainson, loc. cit., 226 (*Coryphæna psittacus* Linnæus).
Eryththys Swainson, loc. cit., 226 (*Labrus croicensis* Bloch).
Chlorurus Swainson, loc. cit., 227 (*Scarus gibbus* Rüppell).
3474. *Scarus bollmani* Jordan and Evermann.
Gulf of Mexico in moderately deep water.
Scarus bollmani Jordan and Evermann, Proc. U. S. Nat. Mus., IX, 1886, 470, snapper banks off Tampa Bay, Fla.
3475. *Scarus punctulatus* Cuvier and Valenciennes.
West Indies; Tortugas.
Scarus punctulatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 144 (195), Martinique.
Scarus diadema Cuvier and Valenciennes, loc. cit., 146 (196), Martinique.
Pseudoscarus tæniopterus Günther, Cat., IV, 1862, 226, Trinidad.
3476. *Scarus tæniopterus* Desmarest.
West Indies.
Scarus tæniopterus Desmarest, Dict. Classique, XV, 1831, 244, pl. 12, Cuba.
Scarus vetula Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 143 (193), St. Thomas; not of Bloch and Schneider.
Scarus virginialis Jordan and Swain, Proc. U. S. Nat. Mus., VII, 1884, 88, Habana.

3477. *Scarus trispinosus* Cuvier and Valenciennes.
Brazil.
Scarus trispinosus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 135 (182), Brazil.
Scarus quadrispinosus Cuvier and Valenciennes, loc. cit., 146 (197), Martinique.
3478. *Scarus aracanga* Günther.
West Indies.
Scarus aracanga Günther, Cat., IV, 1862, 209, Jamaica.
? *Pseudoscarus aracanga* Günther, loc. cit., 227, Jamaica.
3479. *Scarus cuzamilæ* Bean.
Cozumel Island, Yucatan.
Scarus cuzamilæ Bean, Bull. U. S. Fish. Com., VIII, 1888, 196, Cozumel, Yucatan.
3480. *Scarus vetula* Bloch and Schneider. *Mudfish; Vieja; Oldwife.*
Tortugas; West Indies.
Vieja Parra, Dif. Piezas, etc., 1787, 58, pl. 28, fig. 1, Habana.
Scarus vetula Bloch and Schneider, Ichth., 1801, 289, Cuba.
Scarus superbus Poey, Memorias, II, 1860, 218, Cuba.
3481. *Scarus gnathodus* (Poey).
Cuba.
Pseudoscarus gnathodus Poey, Repertorio, II, 1867, 240, Habana.
- Subgenus **CALLYODON** Gronow.
3482. *Scarus croicensis* Bloch. *Bullon.*
West Indies to Key West and Woods Hole, Mass.
Scarus croicensis Bloch, Nat. Ausl. Fische, IV, 1790, 27, St. Croix.
Scarus insulæ-santæ-crucis Bloch and Schneider, Syst. Ichth., 1801, 285, St. Croix.
Scarus alternans Cuvier and Valenciennes, Hist. Nat. Poiss., 1839, 148 (200), Martinique.
Pseudoscarus lineolatus Poey, Repertorio, II, 1867, 239, Cuba.
3483. *Scarus evermanni* Jordan.
Gulf of Mexico, in moderately deep water.
Scarus evermanni Jordan, Proc. U. S. Nat. Mus., IX, 1886, 469, Snapper Banks off Tampa Bay, in moderately deep water.
3484. *Scarus flavomarginatus* Cuvier and Valenciennes.
Martinique.
Scarus flavo-marginatus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 150 (202), Martinique.
3485. *Scarus acutus* Poey.
Cuba.
Scarus acutus Poey, Memorias, II, 1861, 216, Habana.
3486. *Scarus cæruleus* (Bloch). *Blue parrotfish; Loro; Clamagore.*
West Indies; Chesapeake Bay.
Coryphæna cærulea Bloch, Naturgesch. Ausl. Fische, II, 1786, 120 (148), pl. 176, probably Martinique; in part; after Catesby.
Loro Parra, Descrip. Dif. Piezas Hist. Nat., 1787, 57, pl. 27, fig. 1, Cuba.
Trompa Parra, loc. cit., fig. 2, Cuba.
Scarus trilobatus Lacépède, Hist. Nat. Poiss., IV, 1803, 21, Martinique.
? *Scarus holocyaneos* Lacépède, loc. cit., 45, Martinique.
Scarus obtusus Poey, Memorias, II, 1861, 217, Cuba.
Scarus nuchalis Poey, loc. cit., 220, Cuba.
3487. *Scarus compressus* (Osburn and Nichols).
Gulf of California.
Callyodon compressus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 170, fig. 12, Concepcion Bay, Gulf of California.
3488. *Scarus noyesi* Heller and Snodgrass.
Gulf of California to Galapagos Islands.
Scarus noyesi Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 206, Tagus Cove, Albemarle Island.

- 3489. *Scarus emblematicus*** Jordan and Rutter.
Jamaica.
Scarus emblematicus Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 122, Jamaica.
- Genus 1200. PSEUDOSCARUS** Bleeker.
Pseudoscarus Bleeker, Versl. Akad. Vet. Amsterdam, Scaroiden, XII, 1861, 230 (*P. microrrhinos* Bleeker).
Loro Jordan and Evermann, Check List, 1895, 418 (*Scarus guacamaia* Cuvier).
- Subgenus PSEUDOSCARUS** Bleeker.
- 3490. *Pseudoscarus caelestinus*** (Cuvier and Valenciennes). *Loro*.
West Indies.
Scarus caelestinus Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 134 (180), St. Thomas.
- 3491. *Pseudoscarus microps*** (Osburn and Nichols).
Gulf of California.
Callyodon microps Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 170, fig. 12, Santa Catalina Island, Gulf of California.
- 3492. *Pseudoscarus simplex*** Poey.
Cuba.
Pseudoscarus simplex Poey, Repertorio, I, 1867, 185, Habana.
- 3493. *Pseudoscarus pleianus*** (Poey).
St. Thomas; only the type known.
Scarus pleianus Poey, Memorias, II, 1861, 393, St. Thomas, West Indies.
- 3494. *Pseudoscarus guacamaia*** (Cuvier). *Guacamaia*: Green parrotfish.
West Indies, north to Florida Keys, south to Rio de Janeiro; straying to Argentine.
Guacamaya Parra, Deser. Dif. Piezas Hist. Nat., 1787, p. 54, pl. 26, Cuba.
Scarus guacamaia Cuvier, Règne Anim., ed. 2, II, 1829, 265; after Parra.
Scarus turchesius Cuvier and Valenciennes, Hist. Nat. Poiss., XIV, 1839, 134 (181), Porto Rico.
Scarus rostratus Poey, Memorias, II, 1861, 221, Cuba.
- 3495. *Pseudoscarus perrico*** (Jordan and Gilbert). *Perrico*.
Pacific coast of Mexico, from La Paz to Mazatlan.
Scarus perrico Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 357, Mazatlan.
- 3496. *Pseudoscarus plumbeus*** Bean.
Bermudas.
Pseudoscarus plumbeus Bean, Proc. Biol. Soc. Wash., XXV, 1912, 125, Bermudas.

Order VV. GOBOIDEA

Family 255. ELEOTRIDÆ. Sleepers

Genus 1201. GOBIOMORUS Lacépède.

- Gobiomorus* Lacépède, Hist. Nat. Poiss., II, 1800, 583 (*G. dormitor* Lacépède); first restriction to this species.
Philypnus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 255 (*Platycephalus dormitator* Bloch).
Lembus Günther, Cat., I, 1859, 505 (*L. maculatus* Günther).
- 3497. *Gobiomorus dormitor*** Lacépède. *Sleeper*; *Guavina*.
Streams of the West Indies and the Atlantic shores of Central America, Mexico and Surinam.
Gobiomorus dormitor Lacépède, Hist. Nat. Poiss., II, 1800, 583, Martinique; from a drawing by Plumier.
Guavina Parra, Deser. Dif. Piezas Hist. Nat. Cuba, 1787, 105, lam. 39, fig. 1, Habana.
Platycephalus dormitator Bloch and Schneider, Ichth., 1801, 60, Martinique.
Eleotris longiceps Günther, Proc. Zool. Soc. Lond., 1864, 151, Nicaragua.
Eleotris dormitatrix Cuvier, Règne Anim., ed. 2, II, 1829, 246, Antilles.

3498. *Gobiomorus lateralis* (Gill). *Aboma de mar*.

Streams of Pacific coast of Mexico and Central America; from Sonora to Panama.

Philypnus lateralis Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 123, Cape San Lucas.

Genus 1202. DORMITATOR Gill.

Prochilus Cuvier, Règne Anim., ed. 1, II, 1817, 294 (*Sciæna maculata* Bloch); name preoccupied.

Dormitator Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 240 (*D. gundlachi* Poey).

3499. *Dormitator maculatus* (Bloch). *Guavina*; *Mapo*; *Paneca*; *Mapiro*; *Striped sleeper*.

Both coasts of tropical America, ranging from South Carolina through the West Indies to Para, Cape San Lucas, and Panama.

Sciæna maculata Bloch, Ichth., 1785, pl. 299, fig. 2, West Indies.

Eleotris mugiloides Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 170 (226), Martinique; Surinam.

Eleotris sima Cuvier and Valenciennes, loc. cit., 174 (232), Vera Cruz.

Eleotris latifrons Richardson, Voy. Sulphur, Fishes, 1844, 57, pl. 35, figs. 4 and 5, locality unknown, supposed to be from Pacific coast of Central America.

Eleotris grandisquama Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 173 (229), America.

Eleotris somnolentus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169, near mouth of Rio Grande.

Eleotris omocyaneus Poey, Memorias, II, 1861, 269, Habana.

Dormitator microphthalmus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 170, Panama.

Dormitator gundlachi Poey, Synopsis, 1868, 396, Cuba.

Dormitator lineatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 271, Savannah.

Genus 1203. GUAVINA Bleeker.

Guavina Bleeker, Esquisse d'un Syst. Nat. Gobiod., in Archiv Neerl. Sci., IX, 1874 (*Eleotris guavina* Cuvier and Valenciennes).

3500. *Guavina guavina* (Cuvier and Valenciennes). *Guarubaco*; *Guavina*.

East coast of tropical America, Cuba to Rio Janeiro.

Eleotris guavina Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 168 (223) Martinique.

Genus 1204. LEPTOPHYLPNUS Meek and Hildebrand.

Leptophilypnus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 361 (*L. fluviatilis* Meek and Hildebrand).

3501. *Leptophilypnus fluviatilis* Meek and Hildebrand.

Fresh waters of Panama.

Leptophilypnus fluviatilis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 361, Mindi, Canal Zone, Panama.

Genus 1205. ELEOTRIS Schneider.

Eleotris Schneider, Syst. Ichth., ed. Bloch, 1801, 65 (*Gobius pisonis*, etc., Gmelin).

Culius Bleeker, Esquisse, Gobioides, 1874, 304 (*C. fuscus* Bleeker).

3502. *Eleotris pisonis* (Gmelin). *Guavina*; *Tetard*; *Sleeper*.

Streams of the West Indies; southern Florida to Brazil.

Gobius pisonis Gmelin, Syst. Nat., 1789, 1206, Rio Almedares, Cuba; based on *Eleotris* of Gronow.

Amore pixuma Marcgrave, Hist. Brasil., IV, 1648, 166, Brazil.

Eleotris capite plagioplateo Gronow, Mus. Ichth., II, 1757, 168; after Marcgrave.

Gobius amorea Walbaum, Artedi Pisc., III, 1792, 205; based on *Eleotris* of Gronow.

Eleotris gyrinus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 166 (220), pl. 356, Martinique; San Domingo; Surinam.

Eleotris (Culius) belizianus Sauvage, Bull. Soc. Philom. Paris, ser. 7, IV, 1879, 55, Belize, Cayenne.

3503. *Eleotris perniger* (Cope).
West Indies, south to Rio Janeiro.
Culius perniger Cope, Trans. Amer. Phil. Soc., XIV, 1870, 473, St. Martins, West Indies.
3504. *Eleotris amblyopsis* (Cope).
Atlantic coast of America, from Charleston, S. C., to Surinam; streams of West Indies.
Culius amblyopsis Cope, Trans. Amer. Phil. Soc., XIV, 1870, 473, Surinam.
3505. *Eleotris abacurus* Jordan and Gilbert.
Coast of South Carolina.
Eleotris abacurus Jordan and Gilbert, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 228, Charleston, S. C.
3506. *Eleotris pictus* Kner and Steindachner. *Guavina*.
Streams about the Gulf of California, from Sonora south to Panama; Rio Presidio, Mazatlan.
Eleotris pictus Kner and Steindachner, Abh. Akad. Wiss. Wien, X, 1864, 18, pl. 3, fig. 1, Rio Bayano, near Panama.
Culius xquidens Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 461, Rio Presidio, near Mazatlan.
3507. *Eleotris tubularis* Heller and Snodgrass.
Cocos Island.
Eleotris tubularis Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 210, Pl. X, Cocos Island.
- Genus 1206. *ALEXURUS* Jordan.
Alexurus Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 511 (*A. armiger* Jordan and Richardson); perhaps inseparable from *Eleotris*.
3508. *Alexurus armiger* Jordan.
La Paz, Lower California, to Panama.
Alexurus armiger Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 511, pl. 48, La Paz, Lower California.
- Genus 1207. *HEMIELEOTRIS* Meek and Hildebrand.
Hemieleotris Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 364 (*Eleotris latifasciatus* Meek and Hildebrand).
3509. *Hemieleotris latifasciatus* (Meek and Hildebrand).
Streams of Panama.
Eleotris latifasciatus Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1912, 68, Rio Cardenas, Panama.
- Genus 1208. *EROTELIS* Poey. *Esmeraldas de Mar*.
Erotilis Poey, Memorias, II, 1861, 273 (*E. valenciennesi* Poey = *Eleotris smaragdus* Cuvier and Valenciennes).
3510. *Erotilis smaragdus* (Cuvier and Valenciennes). *Esmeralda negra*; *Esmeralda de mar*.
Key West and Cuba; coral shores among algæ.
Eleotris smaragdus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 173 (231), Cuba.
Erotilis valenciennesi Poey, Memorias, II, 1861, 273, Cuba.
- Genus 1209. *MICROËLEOTRIS* Meek and Hildebrand.
Microëleotris Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 362 (*M. panamensis* Meek and Hildebrand).
3511. *Microëleotris panamensis* Meek and Hildebrand.
Pacific slope of central Panama.
Microëleotris panamensis Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 363, Rio Juan Diaz, Panama.
3512. *Microëleotris mindii* Meek and Hildebrand.
Mindi, near Atlantic coast of Canal Zone.
Microëleotris mindii Meek and Hildebrand, Field Mus. Nat. Hist., Zool., X, 1916, 364, brackish creek at Mindi, Canal Zone.

Genus 1210. EVIOTA Jenkins.

Eviota Jenkins, Bull. U. S. Fish Com., XXII, 1902, 501 (*Eviota epiphanes* Jenkins).

3513. *Eviota personata* Jordan and Thompson.

Coral reefs about the Tortugas, Fla.; Garden Key.

Eviota personata Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 251, fig. 3, Garden Key, Fla.

Genus 1211. IOGLOSSUS Bean.

Ioglossus Bean, in Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 297 (*I. calliurus* Bean).

3514. *Ioglossus calliurus* Bean.

Gulf of Mexico; Snapper Banks off Pensacola, Fla.

Ioglossus calliurus Bean, in Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 297, Pensacola, Fla.

Genus 1212. GYMNELEOTRIS Bleeker.

Gymneleotris Bleeker, Esquisse d'un Syst. Nat. des Gobiod., in Archiv Néerl. Sci., IX, 1874, 304 (*Eleotris seminuda* Günther).

3515. *Gymneleotris seminuda* (Günther).

Panama.

Eleotris seminudus Günther, Proc. Zool. Soc. Lond., 1864, 24, pl. 4, figs. 2, 2a, Panama.

Genus 1213. PYCNOMMA Rutter.

Pycnomma Rutter, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 252 (*P. semisquamatum* Rutter).

3516. *Pycnomma semisquamatum* Rutter.

Gulf of California.

Pycnomma semisquamatum Rutter, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 252, Pl. XXIV, Gulf of California.

Genus 1214. CHRIOLEPIS Gilbert.

Chriolepis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 557 (*C. minutillus* Gilbert).

3517. *Chriolepis minutillus* Gilbert.

Gulf of California.

Chriolepis minutillus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 558, Gulf of California, at Albatross station 2825.

Family 256. GOBIIDÆ. Gobies**Genus 1215. LOPHOGOBIUS Gill. Crested gobies.**

Lophogobius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 240 (*Gobius cristagalli* Valenciennes, in Cuvier and Valenciennes=*Gobius cyprinoides* Pallas).

3518. *Lophogobius cyprinoides* (Pallas).

West Indies; Cuba.

Gobius cyprinoides Pallas, Spic., Zool., VIII, 1770, 17, pl. 1, fig. 5, "Amboina."

Gobius crista-galli Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 98 (130), Habana.

Genus 1216. EVORTHODUS Gill.

Evorthodus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 195 (*E. breviceps* Gill).

3519. *Evorthodus breviceps* Gill.

Trinidad and Surinam.

Evorthodus breviceps Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 195, Trinidad.

Genus 1217. CTENOGOBIUS Gill.

Ctenogobius Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 374, 430 (*C. fasciatus* Gill).

3520. *Ctenogobius fasciatus* Gill.

West Indies.

Ctenogobius fasciatus Gill, Ann. Lyc. Nat. Hist. N. Y., VI, 1858, 376, Trinidad.

Genus 1218. RHINOGOBIUS ⁸⁶ Gill.

Rhinogobius Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 145 (*R. similis* Gill).

Coryphopterus Gill, loc. cit., XV, 1863, 263 (*C. glaucofrænum* Gill).

3521. *Rhinogobius glaucofrænum* (Gill).

Florida Keys; Tortugas.

Coryphopterus glaucofrænum Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 263, coast of the State of Washington; evidently an error.

3522. *Rhinogobius manglicola* (Jordan and Starks).

Pacific coast of Mexico at Mazatlan.

Gobius manglicola Jordan and Starks, in Jordan, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 495, Mazatlan, Mexico.

3523. *Rhinogobius quadriporus* (Cuvier and Valenciennes).

Surinam.

Gobius quadriporus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 66 (87), Surinam.

3524. *Rhinogobius stigmaturus* (Goode and Bean).

Florida Keys.

Gobius stigmaturus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 418, no type locality given, but specimens probably from Florida Keys.

3525. *Rhinogobius shufeldti* (Jordan and Eigenmann).

Gulf coast of United States.

Gobius shufeldti Jordan and Eigenmann, Proc. U. S. Nat. Mus., IX, 1886, 495, New Orleans.

3526. *Rhinogobius boleosoma* (Jordan and Gilbert).

Gulf of Mexico, Pensacola to Key West.

Gobius boleosoma Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 295, Laguna Grande, Pensacola, Fla.

3527. *Rhinogobius encæomus* (Jordan and Gilbert).

South Carolina to Key West.

Gobius encæomus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 611, Charleston, S. C.

3528. *Rhinogobius eigenmanni* (Garman).

Off Key West.

Gobius eigenmanni Garman, Bull. Lab. Nat. Sci. State Univ. Iowa, IV, No. 1, 1896, 88, pl. 3, fig. 1, off Key West in 60 fathoms.

3529. *Rhinogobius curaçao* (Metzelaar).

Caribbean Sea.

Gobius curaçao Metzelaar, Trop. Atl. Viss., 1919, 136, fig. 38, Antilles.

3530. *Rhinogobius mowbrayi* Bean.

Bermudas to Caribbean Sea.

Rhinogobius mowbrayi Bean, Field Mus. Nat. Hist., Zool., VII, 1906, 81, Challenger Bank, 28 fathoms, rock cavity, Bermudas.

3531. *Rhinogobius tortugæ* (Jordan).

Dry Tortugas, Garden Key, West Indies.

Ctenogobius tortugæ Jordan, Bull. U. S. Fish Com., XXII, 1902, 541, pl. 1, Garden Key, Tortugas.

3532. *Rhinogobius parvus* (Meek).

Rio San Francisco, La Antigua, Mexico.

Gobius parvus Meek, Field Col. Mus., Zool., III, 1902, 121, La Antigua.

3533. *Rhinogobius claytonii* (Meek).

Rio San Francisco, La Antigua, Mexico.

Gobius claytonii Meek, Field Col. Mus., Zool., III, 1902, 121, La Antigua.

3534. *Rhinogobius garmani* (Eigenmann and Eigenmann).

Dominica; Fort de France; Martinique; St. Kitts.

Gobius garmani Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 61, Dominica; Fort de France, Martinique, and St. Kitts.

* Some of the species named below may belong to *Ctenogobius*, from which this genus differs but slightly.

Genus 1219. GOBIUS Linnæus.*Gobius* Linnæus, Syst. Nat., Ed. X, I, 1758, 263 (*G. niger* Linnæus).**3535. *Gobius translucens* Nichols.**

Porto Rico.

Gobius translucens Nichols, Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, 145, fig. 2, near San Antonio Bridge, San Juan, Porto Rico.**3536. *Gobius hipoliti* Metzelaar.**

West Indies.

Gobius hipoliti Metzelaar, Bijdr. Dierk. Amsterdam, XXII, 1922, 138, with figure, West Indies.**Genus 1220. BATHYGOBIUS Bleeker. *Mapos*.***Bathygobius*⁸⁷ Bleeker, Arch. Neerl. Acad. Sci., XIII, 1878, 54 (*Gobius nebulo-punctatus* Rüppell=*Gobius fuscus* Rüppell).*Mapo* Smitt, Oefv. Kong. Vet. Akad. Stockholm, 1899, 542 (*Gobius soporator* Cuvier and Valenciennes).**3537. *Bathygobius soporator* (Cuvier and Valenciennes). *Sleeper*; *Mapo*; *Caiman*; *Oopu*.**

Barbados, Pará, Itapua, Cuba, Bahamas, Orange Key, Bahia, Pernambuco, St. Thomas, Charleston, Tortugas, Florida Keys, Martinique, Sao Mathias, Curaçao, Rio de Janeiro, Rio Doce.

Gobius soporator Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 42 (56), Martinique.? *Gobius albopunctatus* Cuvier and Valenciennes, loc. cit., 43 (57), Isle of France.? *Gobius padangensis* Bleeker, Nat. Tijds. Ned. Ind., I, 1850, 249, Padang.*Gobius catulus* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169, St. Joseph Island, Tex.? *Gobius breviceps* Blyth, Proc. Asia. Soc. Beng., 1858, 271, Great Andaman Island (in Jour., XXVII, 1858).*Gobius mapo* Poey, Memorias, II, 1861, 277, Cuba.*Gobius lacertus* Poey, loc. cit., 278, Cuba.*Gobius caroliniensis* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 268, Charleston, S. C.*Gobius brunneus* Poey, Synopsis, 1868, 393, Habana.**3538. *Bathygobius fuscus* (Rüppell).**

Red Sea to Galapagos Islands.

Gobius fuscus Rüppell, Atl. Reis. Nord. Af. Fish., 1828, 137, Red Sea.*Gobius punctillatus* Rüppell, loc. cit., 138, Red Sea.*Gobius nebulo-punctatus* Rüppell, Neue Wirbelthiere, Fische, 1835, 139, Red Sea.*Gobius lineatus* Jenyns, Zool. Voy. *Beagle*, 1842, 95, pl. 19, fig. 2, Galapagos Islands.*Gobius homocyanus* Vaillant and Sauvage, Rev. Mag. Zool., III, 1875, 280, Sandwich [Hawaiian] Islands.*Gobius sandvicensis* Günther, Rept. Shore Fishes, *Challenger*, I, 1880, pt. 6, 60, Honolulu.**Genus 1221. RHINOGOBIOPS Hubbs.***Rhinogobiops* Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 169, Feb. 17, 1926, p. 1 (*Gobius nicholsii* Bean).**3539. *Rhinogobiops nicholsii* (Bean).**

Coast of British Columbia, south to southern California.

Gobius nicholsii Bean, Proc. U. S. Nat. Mus., IV, 1881, 469, Departure Bay, British Columbia.**Genus 1222. GOBIONELLUS Girard.***Gobionellus* Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 168 (*G. hastatus* Girard).*Smaragdus* Poey, Memorias, II, 1860, 280 (*Gobius smaragdus* Cuvier and Valenciennes).⁸⁷ An ill-chosen name for these shallow-water gobies.

- 3540. *Gobionellus oceanicus*** (Pallas). *Esmeralda; Endormi; Emerande; Bacalhao sabara*.
Gulf coast of United States, southward through the West Indies.
Gobius oceanicus Pallas, Spic., VIII, 1770, 4, locality unknown; after Gronow.
Gobius lanceolatus Bloch, *Fische Deutschlands*, II, 1783, 8, pl. 38, fig. 1, Martinique.
Gobius bacalaus Cuvier and Valenciennes, *Hist. Nat. Poiss.*, XII, 1837, 90 (119), Surinam; Cayenne.
- 3541. *Gobionellus hastatus*** Girard. *Emerald fish; Sharp-tailed goby*.
Gulf of Mexico.
Gobionellus hastatus Girard, *Proc. Acad. Nat. Sci. Phila.*, X, 1858, 168, St. Joseph Island, Tex.
- 3542. *Gobionellus smaragdus*** (Cuvier and Valenciennes). *Esmeralda*.
West Indies, south to Rio Janeiro, north to St. Augustine, Fla., and to Charleston, N. C.
Gobius smaragdus Cuvier and Valenciennes, *Hist. Nat. Poiss.*, XII, 1837, 91 (120), Cuba.
Smaragdus valenciennesi Poey, *Memorias*, II, 1861, 280, Cuba; after Valenciennes.
- 3543. *Gobionellus sagittula*** (Günther).
Gulf of California, south to Panama.
Eucenogobius sagittula Günther, *Proc. Zool. Soc. Lond.*, 1861, pt. 3, 371, 372, Pacific coast of Central America.
Gobius longicaudus Jenkins and Evermann, *Proc. U. S. Nat. Mus.*, XI, 1888, 146, Guaymas.
- 3544. *Gobionellus strigatus*** (O'Shaughnessy).
Coast of Surinam.
Eucenogobius strigatus O'Shaughnessy, *Ann. Mag. Nat. Hist.*, ser. IV, XV, 1875, 145, Surinam.
Gobius kraussi Steindachner, *Ichth. Beitr.*, VIII, 1879, 16, Surinam.
- 3545. *Gobionellus bayamonensis*** (Evermann and Marsh).
Porto Rico.
Gobius bayamonensis Evermann and Marsh, *Rept. U. S. Fish Com.*, XXV, 1899 (Dec. 19), 355, San Juan Market, Porto Rico.
- 3546. *Gobionellus lyricus*** (Girard).
Gulf of Mexico, from Galveston to Cuba and the Lesser Antilles.
Gobius lyricus Girard, *Proc. Acad. Nat. Sci. Phila.*, X, 1858, 169, Brazos Santiago, Tex.
Gobius wurdemanni Girard, loc. cit., 169, Brazos Santiago.
Smaragdus costalesi Poey, *Memorias*, II, 1861, 280, Habana.
- 3547. *Gobionellus stigmaticus*** (Poey).
Coast of North Carolina, Florida Keys, West Indies, southward to Rio Janeiro; common at Habana.
Smaragdus stigmaticus Poey, *Memorias*, II, 1861, 281, Cuba.
- 3548. *Gobionellus microdon*** (Gilbert).
San Juan Lagoon, west coast of Mexico.
Gobius microdon Gilbert, *Proc. U. S. Nat. Mus.*, XIV, 1891, 554, San Juan Lagoon, north of Rio Ahomè, Mexico.
- Genus 1223. ZONOGOBIUS** Bleeker.
Zonogobius Bleeker, *Esquisse Syst. Nat. Gobioiden*, 1874, 323 (*Gobius semifasciatus* Kner).
- 3549. *Zonogobius zebra*** (Gilbert).
Pacific coast of Mexico and southern California.
Gobius zebra Gilbert, *Proc. U. S. Nat. Mus.*, XIII, 1890, 73, *Albatross station* 2989, Pacific coast of Mexico.
- Genus 1224. EUCTENOGOBIUS** Gill
Eucenogobius Gill, *Ann. Lyc. Nat. Hist. N. Y.*, VII, 1859, VII, 45 (*E. badius* Gill).

- 3550. Euctenogobius badius** Gill.
Mouth of Amazon; recorded also from Martinique.
Euctenogobius badius Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1859, 45, Amazon.
Gobius boscii Sauvage, Bull. Soc. Philom. Paris, IV, 1880, 44, Martinique; not *Gobius bosci* Lacépède.
- 3551. Euctenogobius poeyi** (Steindachner).
Barbados.
Gobius poeyi Steindachner, Ichth. Notizen, VI, 1867, 44, Barbados.
- Genus 1225. LYTHRYPNUS** Jordan and Evermann.
Lythrypnus Jordan and Evermann, Check List, 1895, 458 (*Gobius dalli* Gilbert).
- 3552. Lythrypnus dalli** (Gilbert).
Catalina Harbor, Calif.
Gobius dalli Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 73, Avalon, Catalina Harbor, Calif., in 35 fathoms.
- Genus 1226. XENOGOBIOUS** Metzelaar.
Xenogobius Metzelaar, Trop. Atlant. Vissch., 1919, 140 (*X. weberi* Metzelaar).
- 3553. Xenogobius weberi** Metzelaar.
Caribbean Sea.
Xenogobius weberi Metzelaar, Trop. Atlant. Vissch., 1919, 140, fig. 40, Curaçao.
- Genus 1227. ELACATINUS** Jordan.
Elacatinus Jordan, Bull. U. S. Fish Com., XXII, 1902, 542 (*E. oceanops* Jordan).
- 3554. Elacatinus oceanops** Jordan.
Garden Key, Tortugas.
Elacatinus oceanops Jordan, Bull. U. S. Fish Com., XXII, 1902, 542, pl. 2, Garden Key, Fla.
- Genus 1228. CHONOPHORUS** Poey.
Chonophorus Poey, Memorias, II, 1860, 274 (*C. bucculentus* Poey = *Gobius banana* Cuvier and Valenciennes; published in July, 1860, and therefore presumably older in date than *Awaous*).
Awaous Steindachner, Ver. Mat. Phrs., XLII, 1860, 289 (*Gobius ocellaris* Cuvier and Valenciennes; in an article presented on July 12, 1860).
- 3555. Chonophorus banana** (Cuvier and Valenciennes). *Guavina hoyera*; *Aboma de río*.
West Indies; both coasts of Mexico, south to Brazil; Cuba; Sinaloa; common; Lower California to Panama.
?Gobius taiasica Liechtenstein, Abh. Akad. Wiss. Berlin, 1822, 273, Brazil; not *Tajaasica* Maregrave.
Gobius banana Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 78 (103), San Domingo.
Gobius martinicus Cuvier and Valenciennes, loc. cit., 79 (105), Martinique.
Chonophorus bucculentus Poey, Memorias, II, 1860, 275, Cuba.
Chonophorus contractus Poey, loc. cit., Cuba.
Gobius dolichocephalus Cope, Trans. Amer. Phil. Soc. Phila., XIII, 1869, 403, near Orizaba, Mexico.
Euctenogobius latus O'Shaughnessy, Ann. Mag. Nat. Hist., ser. 4, XV, 1875, 146, Bahia.
- 3556. Chonophorus mexicanus** (Günther).
Fresh-water streams of Atlantic slope of Mexico.
Gobius mexicanus Günther, Cat., III, 1861, 61, Mexico.
- 3557. Chonophorus nelsoni** (Evermann).
Streams of Sinaloa.
Awaous nelsoni Evermann, Proc. Biol. Soc. Wash., XII, 1898, 3, fresh-water pools at Rosario, Sinaloa, Mexico.
- Genus 1229. GNATHOLEPIS** Bleeker.
Gnatholepis Bleeker, Esquisse Syst. Nat. Gobioiden, 1874, 318 (*Gobius anjerensis* Bleeker).

3558. *Gnatholepis thompsoni* Jordan.
Bush Key, Tortugas.
Gnatholepis thompsoni Jordan, Bull. U. S. Fish Com., XXII, 1902, 541,
pl. 1, Bush Key, Tortugas.
- Genus 1230. **BOLLMANNIA** Jordan.
Bollmannia Jordan, Proc. U. S. Nat. Mus., XII, 1889, 164 (*B. chlamydes*
Jordan).
3559. *Bollmannia chlamydes* Jordan.
Pacific Ocean off coast of Colombia.
Bollmannia chlamydes Jordan, Proc. U. S. Nat. Mus., XII, 1889, 164,
Pacific Ocean off coast of Colombia.
3560. *Bollmannia ocellata* Gilbert.
Gulf of California.
Bollmannia ocellata Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 555,
northern part of Gulf of California at *Albatross* stations 3031 and 3035
in 30 and 33 fathoms.
3561. *Bollmannia macropoma* Gilbert.
Gulf of California.
Bollmannia macropoma Gilbert, Proc. U. S. Nat. Mus., XIV, 1891,
556, near La Paz, Gulf of California, at *Albatross* station 2996 in
112 fathoms.
3562. *Bollmannia stigmatura* Gilbert.
Northern part of the Gulf of California.
Bollmannia stigmatura Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 556,
Gulf of California at *Albatross* stations 3016 and 3017 in 76 and 58
fathoms.
3563. *Bollmannia boqueronensis* Evermann and Marsh.
Porto Rico.
Bollmannia boqueronensis Evermann and Marsh, Rept. U. S. Fish Com.,
XXV, 1899 (Dec. 19), 356, Ensenada del Boqueron, Porto Rico.
- Genus 1231. **ABOMA** Jordan and Starks.
Aboma Jordan and Starks, Fishes of Sinaloa, Proc. Calif. Acad. Sci.,
2d ser., V, 1895, 497 (*A. etheostoma* Jordan and Starks).
3564. *Aboma etheostoma* Jordan and Starks.
Pacific coast of Mexico.
Aboma etheostoma Jordan and Starks, Fishes of Sinaloa, Proc. Calif.
Acad. Sci., 2d ser., V, 1895, 498, pl. 50, Mazatlan, Mexico.
3565. *Aboma lucretiae* (Eigenmann and Eigenmann).
Pearl Island, Gulf of Panama.
Gobius lucretiae Eigenmann and Eigenmann, Proc. Calif. Acad. Sci.,
2d ser., I, 1888, 57, Pearl Island, Gulf of Panama.
3566. *Aboma chiquita* (Jenkins and Evermann).
Gulf of California.
Gobius chiquita Jenkins and Evermann, Proc. U. S. Nat. Mus., XI,
1888, 146, Guaymas, Sonora, Mexico.
- Genus 1232. **MICROGOBIUS** Poey.
Microgobius Poey, Enumeratio, 126, 1876 (*M. signatus* Poey).
Zalypnus Jordan and Evermann, Check List, 1895, 459 (*Gobius em-*
blematicus Jordan and Gilbert).
3567. *Microgobius emblematicus* (Jordan and Gilbert).
Lower California to Panama.
Gobius emblematicus Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881,
330, Bay of Panama.
Microgobius cyclolepis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 74,
Albatross station 3020, Lower California.
3568. *Microgobius signatus* Poey.
West Indies; common about Cuba.
Microgobius signatus Poey, Enumeratio, 1876, 127, pl. 5, fig. 3, Cuba.
3569. *Microgobius gulosus* (Girard).
Coast of Florida to Texas; common north to Indian River, Fla.
Gobius gulosus Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169,
Indianola, Tex.

3570. *Microgobius meeki* Evermann and Marsh.
Culebra and Vieques Islands, Porto Rico.
Microgobius meeki Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 356, between Vieques and Culebra Islands east of Porto Rico.
3571. *Microgobius thalassinus* (Jordan and Gilbert).
South Atlantic coast, Virginia to South Carolina.
Gobius thalassinus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 612, Charleston Harbor, S. C.
Microgobius eulepis Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 69, Fortress Monroe, Va.
3572. *Microgobius miraflorensis* Gilbert and Starks.
Bay of Panama.
Microgobius miraflorensis Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 176, Pl. XXIX, Bay of Panama.
- Genus 1233. *EUCYCLOGOBIUS* Gill.
Eucyclogobius Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 279 (*Gobius newberryi* Girard).
3573. *Eucyclogobius newberryi* (Girard).
Streams of California, in small brooks near the sea; locally common in San Luis Obispo Creek.
Gobius newberryi Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 136, Tomales Bay, Calif.
- Genus 1234. *LEPIDOGOBIUS* Gill.
Lepidogobius Gill, Ann. Lyc. Nat. Hist. N. Y., VII, 1859, 14 (*Gobius lepidus* Girard).
Cyclogobius Steindachner, Sitzb. Kais. Akad. Wiss. Wien, XLII, 1860, 284 (*Gobius lepidus* Girard).
3574. *Lepidogobius lepidus* (Girard).
Pacific coast of North America, from Vancouver Island to Lower California, in rather deep water off San Francisco Bay.
Gobius lepidus Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 127, 25a, figs. 5 and 6; substitute for *Gobius gracilis*, preoccupied.
Gobius gracilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 134, San Francisco.
- Genus 1235. *GILLICHTHYS* Cooper.
Gillichthys Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109 (*G. mirabilis* Cooper).
Gillia Günther, Zool. Rec., 1864, 137 (*Gillichthys mirabilis* Cooper); substitute name preoccupied.
Aprolepis Hubbs, Occ. Papers, Univ. Mich. Mus. Zool., I, 1921, 99 (*A. barbaræ* Hubbs); young of *Gillichthys mirabilis*.
3575. *Gillichthys mirabilis* Cooper. *Long-jawed goby*.
Pacific coast of North America, from San Francisco to Guaymas.
Gillichthys mirabilis Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109, San Diego Bay.
Gobius townsendi Eigenmann and Eigenmann, Proc. U. S. Nat. Mus., XI, 1888, 463, San Diego, Calif.
Aprolepis barbaræ Hubbs, Occ. Papers Univ. Mich. Mus. Zool., I, 1921, 99, young.
3576. *Gillichthys detrusus* Gilbert and Scofield.
Horseshoe Bend, near mouth of Colorado River, in Mexico.
Gillichthys detrusus Gilbert and Scofield, Proc. U. S. Nat. Mus., XX, 1896, 498, near mouth of Colorado River.
- Genus 1236. *QUIETULA* Jordan and Evermann.
Quietula Jordan and Evermann, in Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 839 (*Gillichthys y-cauda* Jenkins and Evermann).
3577. *Quietula y-cauda* (Jenkins and Evermann).
Pacific coast of North America from Guaymas to Vancouver Island.
Gillichthys y-cauda Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 147, Guaymas, Sonora.
Gillichthys guayamasæ Jenkins and Evermann, loc. cit., 148, Guaymas, Sonora.

Genus 1237. CLEVELANDIA Eigenmann and Eigenmann.

Clevelandia Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 73 (*C. longipinnis* Eigenmann and Eigenmann = *Clevelandia rosæ* Jordan and Evermann).

3578. *Clevelandia ios* (Jordan and Gilbert).

Puget Sound and neighboring waters.

Gobiosoma ios Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 437, Saanich Arm, Vancouver Island.

Clevelandia longipinnis Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 73; not of Steindachner.

Clevelandia rosæ Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 229, San Diego, Calif.

Genus 1238. ILYPNUS Jordan and Evermann.

Ilypnus Jordan and Evermann, Check List, 1895, 460 (*Lepidogobius gilberti* Eigenmann and Eigenmann).

3579. *Ilypnus gilberti* (Eigenmann and Eigenmann).

San Diego Bay and southward; abundant at Magdalena Bay, Conception Bay, and St. George's Bay in the Gulf of California.

Lepidogobius gilberti Eigenmann and Eigenmann, Proc. U. S. Nat. Mus., XI, 1888, 464, San Diego Bay, Calif.

Genus 1239. EVERMANNIA Jordan.

Evermannia Jordan, Proc. Calif. Acad. Sci., 2d ser., IV, 1895, 592 (*Gobiosoma zosterurum* Jordan and Gilbert).

3580. *Evermannia zosterura* (Jordan and Gilbert).

Pacific coast of Mexico at Mazatlan, Mexico.

Gobiosoma zosterurum Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 361, Mazatlan.

3581. *Evermannia longipinnis* (Steindachner).

Gulf of California.

Gobiosoma longipinne Steindachner, Ichth. Beitr., VIII, 1879, 27, Las Animas Island, Gulf of California.

3582. *Evermannia panamensis* Gilbert and Starks.

Panama Bay.

Evermannia panamensis Gilbert and Starks, Mem. Calif. Acad. Sci., VI, 1904, 179, Pl. XXX, Panama Bay.

Genus 1240. GARMANNIA Jordan and Evermann. *Half-naked gobies.*

Garmannia Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 496, pl. 49 (*Gobius paradoxus* Günther).

3583. *Garmannia paradoxa* (Günther).

Pacific coast of Mexico, Mazatlan to Panama.

Gobius paradoxus Günther, Cat., III, 1861, 549, Pacific coast of Central America.

3584. *Garmannia hemigymna* (Eigenmann and Eigenmann).

West Indies.

Gobius hemigymnus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 66, dredged in the West Indies.

3585. *Garmannia rubra* Rosen.

Bahamas.

Garmannia rubra Rosen, Arsekr. Univ. Lund, VII, 1912, 50, Bahamas.

Genus 1241. ENYPNIAS Jordan and Evermann.

Enypnias Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2233 (*Gobius seminudus* Günther).

3586. *Enypnias seminudus* (Günther).

Pacific coast of Central America.

Gobius seminudus Günther, Cat., III, 1861, 554, Pacific coast of Central America.

Genus 1242. GOBIOSOMA Girard.

Gobiosoma Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169 (*Gobius alepidotus* Bloch and Schneider = *Gobius bosci* Lacépède).

3587. *Gobiosoma bosci* (Lacépède). *Naked goby; Clinging goby; Goby; Variegated goby; Mud-creeper; Oysterfish.*
Atlantic coast of United States, Cape Cod to Florida.
Gobius bosci Lacépède, Hist. Nat. Poiss., II, 1798, 555, pl. 16, fig. 1, Charleston, S. C.
Gobius alepidotus Bloch and Schneider, Syst. Ichth., 1801, 547; after Lacépède.
Gobius viridipallidus Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1814, 379, pl. 1, fig. 8, New York.
3588. *Gobiosoma molestum* Girard.
Gulf coast of the United States from Key West to Texas, and south to Bahia.
Gobiosoma molestum Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169, Indianola, Tex.
Gobiosoma alepidotum Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 297, Laguna Grande, Pensacola, Fla.
3589. *Gobiosoma histrio* Jordan.
Known only from the Gulf of California at Guaymas.
Gobiosoma histrio Jordan, Proc. U. S. Nat. Mus., VII, 1884, 260, Guaymas, Mexico.
3590. *Gobiosoma crescentale* Gilbert.
Gulf of California.
Gobiosoma crescentalis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 557, Gulf of California, at Albatross station 2825.
3591. *Gobiosoma multifasciatum* Steindachner.
West Indies; known from Cuba, St. Thomas, and the Lesser Antilles.
Gobiosoma multifasciatum Steindachner, Ichth. Beitr., V, 1876, 183, Lesser Antilles.
Gobius lineatus Poey, Memorias, II, 1861, 424, Cuba; not of Jenyns.
3592. *Gobiosoma horsti* Metzelaar.
Curaçao, Caribbean Sea.
Gobiosoma horsti Metzelaar, Marine Fishes Lesser Antilles, 1923, Curaçao.
3593. *Gobiosoma longum* Nichols.
West Indies, north to Florida.
Gobiosoma longum Nichols, Bull. Amer. Mus. Nat. Hist., XXXIII, 1914, 143, fig. 1, Florida.
- Genus 1243. *BARBULIFER* Eigenmann and Eigenmann.
Barbulifer Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser. I, 1888, 70 (*B. papillosus* Eigenmann and Eigenmann=*Gobiosoma cauthæcum* Jordan and Gilbert).
3594. *Barbulifer cauthæcus* (Jordan and Gilbert).
About Key West, Fla.
Gobiosoma cauthæcum Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 29, Key West, Fla.
Barbulifer papillosus Eigenmann and Eigenmann, Proc. Calif. Acad. Sci., 2d ser., I, 1888, 70, Key West, Fla.
- Genus 1244. *EVERMANNICHTHYS* Metzelaar.
Evermannichthys Metzelaar, Trop. Atl. Vissch., 1919, 139 (*E. spongicola* Metzelaar).
Radeliifiella Hubbs, Occ. Papers, Mus. Zool. Univ. Mich., No. 99, 1921, 2 (*Garmannia spongicola* Radcliffe).
3595. *Evermannichthys spongicola* (Radcliffe).
Off shore banks of North Carolina and Florida in cavities of sponges.
Garmannia spongicola Radcliffe, Proc. U. S. Nat. Mus., LII, 1917, 423, off Cape Hatteras, N. C., and near Tarpon Springs, west coast of Florida.

3596. *Evermannichthys metzelaari* Hubbs.

Caribbean sea, living in sponges.

Evermannichthys spongicola Metzelaar, Trop. Atl. Vissch., 1919, 189, figs. 39 and 40, 139, Curaçao; name preoccupied by *Evermannichthys spongicola* (Radcliffe).

Evermannichthys metzelaari Hubbs, Occ. Papers Mus. Zool. Univ. Mich., No. 144, Dec. 21, 1923, pl. 1, Curaçao; substitute for *E. spongicola* Metzelaar, preoccupied.

Genus 1245. *LETHOPS* Hubbs.

Lethops Hubbs, Occ. Papers Univ. Mich. Mus. Zool., 1925 (*Lethops connectens* Hubbs).

3597. *Lethops connectens* Hubbs.

Coast of California in tide pools.

Lethops connectens Hubbs, Occ. Papers Mus. Zool. Univ. Mich., 1925, Carmel Bay; Point Firmin, near Los Angeles.

Genus 1246. *TYPHLOGOBIUS* Steindachner. *Blind gobies*.

Typhlogobius Steindachner, Ichth. Beitr., VIII, 1879, 24 (*T. californiensis* Steindachner).

Othonops Rosa Smith (Mrs. Eigenmann), Proc. U. S. Nat. Mus., II, 1881, 19 (*O. eos* Smith = *Typhlogobius californiensis* Steindachner).

3598. *Typhlogobius californiensis* Steindachner. *Blind goby of Point Loma; Pinkfish*.

Coast of Lower California, from San Diego southward to Cedros Island; especially common at Point Loma.

Typhlogobius californiensis Steindachner, Ichth. Beitr., VIII, 1879, 24, False Bay, San Diego, Calif.

Othonops eos Rosa Smith, Proc. U. S. Nat. Mus., II, 1881, 19, Point Loma, San Diego, Calif.

Genus 1247. *SICYDIUM* Cuvier and Valenciennes.

Sicydium Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 126 (168) (*Gobius plumieri* Bloch).

3599. *Sicydium plumieri* (Bloch). *Sirago*.

Fresh waters of the West Indies.

Gobius plumieri Bloch, Ichth., 1786, 125, pl. 178, fig. 3, Martinique; on a drawing by Plumier.

Sicydium siragus Poey, Memorias, II, 1861, 278, Santiago de Cuba.

3600. *Sicydium caguitæ* Evermann and Marsh.

Porto Rico.

Sicydium caguitæ Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 355, Rio de Caguitas at Caguas, Porto Rico.

3601. *Sicydium vincente* Jordan and Evermann.

Kingston, St. Vincent Island; Haiti.

Sicydium vincente Jordan and Evermann, Check List, 1895, 45, St. Vincent Island.

3602. *Sicydium antillarum* Ogilvie-Grant.

Barbados.

Sicydium antillarum Ogilvie-Grant, Proc. Zool. Soc. Lond., 1884, 157, Barbados.

3603. *Sicydium punctatum* Perugia.

Martinique.

Sicydium punctatum Perugia, Annali del Museo Civico di Storia Naturali di Genova, ser. 2, XVI, 1896, 18, Martinique.

3604. *Sicydium buscki* Evermann and Clark.

Santo Domingo.

Sicydium buscki Evermann and Clark, Proc. U. S. Nat. Mus., XXX, 1906, 854, fig. 3, San Francisco Mountain, Santo Domingo.

Genus 1248. *COTYLOPUS* Guichenot.

Cotylopus Guichenot, in Maillard, Notes sur l'Isle de la Réunion, II, 1862, annex b., 9 (*C. acutipinnis*).

Sicya Jordan and Evermann, Check List, 1895, 456, (*Sicydium gymnogaster* Ogilvie-Grant).

3605. *Cotylopus salvini* (Ogilvie-Grant).
Streams near Panama.
Sicydium salvini Ogilvie-Grant, Proc. Zool. Soc. Lond., 1884, 159, pl. 12, fig. 2, Panama.
3606. *Cotylopus cocoensis* Heller and Snodgrass.
Chatham Bay, Cocos Island, northwest of Panama.
Cotylopus cocoensis Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 211, Pl. XI, Cocos Island.
3607. *Cotylopus punctatus* Regan.
Tequesitlan, Mexico.
Cotylopus punctatus Regan, Ann. Mag. Nat. Hist., ser. 7, XVI, 1905, 362, Tequesitlan, Mexico.

Family 257. GOBIOIDIDÆ

Genus 1249. GOBIOIDES Lacépède.

Gobioides Lacépède, Hist. Nat. Poiss., II, 1800, 580 (*G. broussonnetii* Lacépède).

3608. *Gobioides broussonnetii* Lacépède.

West Indies to Brazil; once taken near New Orleans.

Gobioides broussonnetii Lacépède, Hist. Nat. Poiss., II, 1800, 580, probably from Surinam; "given by Holland to France."

Gobius brasiliensis Bloch and Schneider, Syst. Ichth., 1801, 69, Brazil.

Gobius oblongus Bloch and Schneider, loc. cit., 548; based on Lacépède.

Gobioides barreto Poey, Memorias, II, 1861, 282, Cuba.

Amblyopsis mexicanus O'Shaughnessy, Ann. Mag. Nat. Hist., ser. 4, XV, 1875, 147, Mexico.

Genus 1250. TYNTLASTES Günther.

Tyntlastes Günther, Proc. Zool. Soc. Lond., 1862, 193 (*Amblyopus sagitta* Günther).

3609. *Tyntlastes sagitta* (Günther).

Coast of Lower California.

Amblyopus sagitta Günther, Proc. Zool. Soc. Lond., 1862, 193, "California"; probably from Lower California.

3610. *Tyntlastes brevis* (Günther).

Panama.

Amblyopus brevis Günther, Proc. Zool. Soc. Lond., 1864, 151, Panama.

Genus 1251. CAYENNIA Sauvage.

Cayennia Sauvage, Bull. Soc. Philom., ser. 7, IV, 1880, 57 (*C. guichenoti* Sauvage).

3611. *Cayennia guichenoti* Sauvage.

Cayenne, French Guiana.

Cayennia guichenoti Sauvage, Bull. Soc. Philom., ser. 7, IV, 1880, 57, Cayenne.

Order WW. DISCOCEPHALI

Family 258. ECHENEIDÆ. Remoras

Genus 1252. ECHENEIS Linnæus.

Echeneis Linnæus, Syst. Nat., Ed. X, 1758, 261 (*E. naucrates* Linnæus, as first restricted by Gill, 1862).

Leptecheneis Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 60 (*Echeneis naucrates* Linnæus).

3612. *Echeneis naucrates* Linnæus. Sharksucker; Pega; Pegador; Suckingfish; White-tailed remora; Indian remora.

Warm seas, universally distributed; common north to Cape Cod and San Francisco.

Echeneis naucrates (misprint for *naucrates*) Linnæus, Syst. Nat., Ed. X, 1758, 261, Pelago Indico.

Echeneis albacauda Mitchill, Amer. Month. Mag., II, 1818, 244, New York.

Echeneis lunata Bancroft, Proc. Comm. Zool. Soc., I, 1830, 124, Kingston, Jamaica.

- Echeneis vittata* Lowe, Proc. Zool. Soc. Lond., 1839, 89, Madeira.
Echeneis guaicana Poey, Memorias, II, 1861, 248, Cuba.
Echeneis verticalis Poey, loc. cit., 253, Cuba.
Echeneis metallica Poey, loc. cit., 252, Cuba.
Echeneis fusca Gronow, Cat. Fish., ed. Gray, 1854, 92; after Linnæus.
Echeneis neucratoides Zuieuw, Nova Acta Acad. Sci. Imp. Petropol., IV, 1789, 279, no locality.
Echeneis lineata Holbrook, Ichth. South Carolina, 1855, 101, Charleston, S. C.; not of Menzies.
Echeneis holbrooki Günther, Cat., II, 1860, 382, Jamaica.

Genus 1253. REMILEGIA Gill.

- Remilegia* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 239 (*Echeneis scutata* Günther).

3613. Remilegia australis (Bennett).

- Tropical seas; recorded by Doctor Lütken from 10° N., 39° W.
Echeneis australis Bennett, Nar. Whaling Voyage, II, 1840, 273, pls. 24-26.
Echeneis scutata Günther, Ann. Mag. Nat. Hist., 1860, 401, pl. 10, fig. B, Ceylon.

Genus 1254. REMORA Forster.

- Remora* Forster, Cat. Anim. N. Amer., 1770, 20 (*Echeneis remora* Linnæus).

3614. Remora remora (Linnæus). Remora; Sucker; Pega.

- Warm seas, north to New York and San Francisco.
Echeneis remora Linnæus, Syst. Nat., Ed. X, 1758, 260, Pelago Indico.
Echeneis squalipeta Daldorf, Skrivt. Naturrh. Selsk., II, 1793, 157, Atlantic Ocean between the tropics.
Echeneis jacobæa Lowe, Proc. Zool. Soc. Lond., 1839, 89, Madeira.
Echeneis remoroides Bleeker, Natur. Tijds. Ned. Ind. (Batæ, IX, 1855, 70, Batæ).
Echeneis parva Gronow, Cat. Fish., ed. Gray, 1854, 92, no locality; after Linnæus.
Echeneis postica Poey, Memorias, II, 1861, 255, Habana.

Genus 1255. REMORINA Jordan and Evermann.

- Remorina* Jordan and Evermann, Check List, 1895, 490 (*Echeneis albescens* Temminck and Schlegel).

3615. Remorina albescens (Temminck and Schlegel).

- Tropical Pacific, northward to San Francisco and Japan; common at Galapagos Islands.
Echeneis albescens Temminck and Schlegel, Fauna Japonica, Poiss., 1845, 272, pl. 120, fig. 4, Nagasaki, Japan.

Genus 1256. REMOROPSIS Gill.

- Remoropsis* Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 60 (*Echeneis brachyptera* Lowe).

3616. Remoropsis brachyptera (Lowe). Swordfish sucker.

- Warm seas; occasionally north to Cape Cod.
Echeneis brachyptera Lowe, Proc. Zool. Soc. Lond., 1839, 89, Madeira.
Echeneis sexdecim-lamellata Eydoux and Gervais, Voy. Favorite, V, 1839, 77, pl. 31, Indian Ocean.
Echeneis quatuordecimlaminatus Storer, Rept. Fishes Mass., 1839, 155, Holmes Hole.
Echeneis pallida Temminck and Schlegel, Fauna Japonica, Poiss., 1845, 271, pl. 120, fig. 2, 3, Japan.
Echeneis nieuhofii Bleeker, Sumatra, Naturk. Tijds. Neder. Indie, IV, 1853, 279, Sumatra, Priaman.

Genus 1257. PHTHEIRICHTHYS Gill.

- Phtheichthys* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 239 (*Echeneis lineata* Menzies).

3617. Phtheichthys tropicus (Euphrasen).

- Tropical seas, ranging north to South Carolina and Pensacola.
Echeneis tropica Euphrasen, Nya. Handl., XII, 1791, 315, Atlantic between the tropics.
Echeneis apicalis Poey, Memorias, II, 1861, 254, Cuba.
Echeneis sphyrenarum Poey, loc. cit., 255, Cuba, on barracudas.

Genus 1258. RHOMBOCHIRUS Gill.

Rhombochirus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 88 (*Echeneis osteochir* Cuvier).

3618. *Rhombochirus osteochir* (Cuvier). *Spearfish sucker*.

West Indies, north to Cape Cod.

Echeneis osteochir Cuvier, Règne Animal, ed. 2, II, 1829, 348, no locality given.

Echeneis terapturorum Poey, Memoria's, II, 1861, 256, Cuba.

Order XX. JUGULARES**Family 259. DRACONETTIDÆ****Genus 1259. DRACONETTA Jordan and Fowler.**

Draconetta Jordan and Fowler, Proc. U. S. Nat. Mus., XXV, 1903, 939 (*D. zenica* Jordan and Fowler).

3619. *Draconetta acanthopoma* Regan.

Depths of north Atlantic.

Draconetta acanthopoma Regan, Ann. Mag. Nat. Hist., May, 1904; north Atlantic, in deep water.

Family 260. CALLIONYMIDÆ. Dragonets**Genus 1260. CALLIONYMUS Linnæus.**

Callionymus Linnæus, Syst. Nat., Ed. X, 1758, 249, (*C. lyra* Linnæus).

3620. *Callionymus bairdi* Jordan.

Snapper Banks, Gulf of Mexico, between Pensacola and Tampa, Fla.

Callionymus bairdi Jordan, Proc., U. S. Nat. Mus., X, 1887, 501, Snapper Banks off Pensacola, Fla.

3621. *Callionymus agassizii* Goode and Bean.

West Indies off Barbados and Santa Cruz

Callionymus agassizii Goode and Bean, Three Cruises of the *Blake*, II, 1888, 29, fig., Gulf of Mexico.

Callionymus himantophorus Goode and Bean, Oceanic Ichth., 1895, 296, figs. 268 A and B, off Barbados in 209 fathoms.

3622. *Callionymus calliurus* Eigenmann and Eigenmann.

Key West, Fla.

Callionymus calliurus Eigenmann and Eigenmann, Proc., Calif. Acad. Sci., 2d ser., I, 1888, 76, South Beach, Key West, Fla.

3623. *Callionymus pauciradiatus* Gill.

Matanzas, Cuba.

Callionymus pauciradiatus Gill, Ann. Lye. Nat. Hist. N. Y., VIII, 1867, 143, Matanzas, Cuba.

3624. *Callionymus bermударum* Barbour.

Castle Island, Bermudas.

Callionymus bermударum Barbour, Bull. Mus. Comp. Zool., XLVI, 1905, No. 7, 129, Castle Island, Bermudas.

3625. *Callionymus bækei* Metzelaar.

Caribbean Sea.

Callionymus bækei Metzelaar, Trop. Atl. Vissch., 1916, 149, fig. 47, Curaçao.

3626. *Callionymus sancti-eustatii* Metzelaar.

Callionymus sancti-eustatii Metzelaar, Trop. Atl. Vissch., 1916, 150, fig. 47, St. Eustatius.

3627. *Callionymus atrilabiatus* Garman.

Off Bay of Panama in deep water.

Callionymus atrilabiatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 122, off Bay of Panama.

Family 261. PTEROPSARIDÆ

Genus 1261. HYPsicOMETES Goode.

Hypsicometes Goode, Proc. U. S. Nat. Mus., III, 1880, 347 (*H. gobioides* Goode).

3628. *Hypsicometes gobioides* Goode.

Gulf Stream.

Hypsicometes gobioides Goode, Proc. U. S. Nat. Mus., III, 1880, 348, Gulf Stream at Albatross station 871, 40° 2' 54" N., 70° 23' 40" W., in 115 fathoms.

Family 262. AMMODYTIDÆ. Sand lances or sand launces

Genus 1262. AMMODYTES Linnæus. *Sand launces*; *Sand lances*.

Ammodytes Linnæus, Syst. Nat., Ed. X, 1758, 247 (*A. tobianus* Linnæus). *Argyrotenia* Gill, Fishes East Coast U. S., Suppl. to Proc. Acad. Nat. Sci. Phila., XIII, 1861, 40 (*Ammodytes vittatus* DeKay; probably a deformed example).

3629. *Ammodytes americanus* DeKay. *Sand lancee*; *Sand lance*; *Sand eel*; *Lant*.

Newfoundland to Cape May and Cape Hatteras; abundant on sandy shores.

Ammodytes americanus DeKay, New York Fauna: Fishes, 1842, 317, Stratford, Conn.

Ammodytes vittatus DeKay, loc. cit., 318, pl. 60, fig. 197, New York.

3630. *Ammodytes dubius* Reinhardt.

Greenland to Cape Cod.

Ammodytes dubius Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 131, Greenland.

3631. *Ammodytes personatus* Girard. *Sand lancee*; *Sand lance*.

Japan to Alaska, south to Monterey, Calif.

Ammodytes personatus Girard, Proc. Acad. Nat. Sci. Phila., VIII, 1856, 137, Cape Flattery, Wash.

3632. *Ammodytes alascanus* Cope. *Alaska sand lance*

North Pacific coast of North America, Sitka to Aleutian Islands.

Ammodytes alascanus Cope, Proc. Am. Phil. Soc., XIII, 1873, 30, Sitka, Alaska.

Family 263. BLEEKERIIDÆ

Genus 1263. RHYNCHIAS Gill.

Rhynchias Gill, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2841 (*Ammodytes septipinnis* Pallas); species and genus doubtful, not seen by recent authors.

3633. *Rhynchias septipinnis* (Pallas).

Kamchatka.

Ammodytes septipinnis Pallas, Rosso-Asiat., III, 1811, 227, Tab. XLVIII, fig. 3, Kamchatka.

Family 264. BATHYMASTERIDÆ. Ronquils

Genus 1264. BATHYMASTER Cope.

Bathymaster Cope, Proc. Amer. Phil. Soc., XIII, 1873, 31 (*B. signatus* Cope).

3634. *Bathymaster signatus* Cope.

Shores of Alaska.

Bathymaster signatus Cope, Proc. Amer. Phil. Soc. XIII, 1873, 31, near Sitka, Alaska.

3635. *Bathymaster cæruleofasciatus* Gilbert and Burke.

Southern Bering Sea.

Bathymaster cæruleofasciatus Gilbert and Burke, Bull. U. S. Bur. Fish., XX, 1910, 84, fig. 29, Agattu Island, Alaska.

Genus 1265. **RONQUILUS** Jordan and Starks.

Ronquilus Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 838 (*Bathymaster jordani* Gilbert).

3636. **Ronquilus jordani** (Gilbert). *Ronquil.*

Alaska to Puget Sound.

Rathymaster jordani Gilbert, Proc. U. S. Nat. Mus., XI, 1888, 554, Elliott Bay at Seattle; Alaska.

Genus 1266. **RATHBUNELLA** Jordan and Evermann.

Rathbunella Jordan and Evermann, Check List, 1895, 463 (*Bathymaster hypoplectus* Gilbert).

3637. **Rathbunella hypoplecta** (Gilbert).

Coast of California about the Santa Barbara Islands.

Bathymaster hypoplectus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 97, coast of California, south of Point Conception, at Albatross station 2944.

3638. **Rathbunella alleni** Gilbert.

Monterey Bay, Calif.

Rathbunella alleni Gilbert, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 267, Monterey Bay, Calif.

Family 265. **ZAPRORIDÆ**Genus 1267. **ZAPRORA** Jordan.

Zaprora Jordan, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 202 (*Z. silenus* Jordan).

3639. **Zaprora silenus** Jordan.

East coast of Vancouver Island; only four specimens known.

Zaprora silenus Jordan, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 203, pl. 20, Nanaimo, Vancouver Island.

Family 266. **CHIASMODONTIDÆ**. Black swallows.Genus 1268. **CHIASMODON** Johnson.

Chiasmodon Johnson, Proc. Zool. Soc. Lond., 1863, 408 (*C. niger* Johnson).

Chiasmodus Günther, altered spelling.

3640. **Chiasmodon niger** Johnson. *Black swallower.*

Deep waters of the Atlantic; taken at Madeira and off Massachusetts coast.

Chiasmodon niger Johnson, Proc. Zool. Soc. Lond., 1863, 408, Madeira.

3641. **Chiasmodon subniger** Garman.

Pacific coast of Mexico, off Lower California, in deep water.

Chiasmodon subniger Garman, Mem., Mus. Comp. Zool., XXIV, 1899, 73, off Gulf of California at Albatross station 3429.

Genus 1269. **PSEUDOSCOPELUS** Lütken.

Pseudoscopus Lütken, Spolia Atlantica, Scopelini, 64, in Vid. Selsk. Skr. (6), VII, 1892, 285 (*P. scriptus* Lütken).

3642. **Pseudoscopus scriptus** Lütken.

Old Bahama Straits, in deep water.

Pseudoscopus scriptus Lütken, Spolia Atlantica, Scopelini, 64, in Vid. Selsk. Skr. (6), VII, 1892, 285, Old Bahama Straits.

Family 267. **OPISTHOGNATHIDÆ**. JawfishesGenus 1270. **OPISTHOGNATHUS** Cuvier.

Opisthognathus Cuvier, Règne Anim., Ed. I, 1817, 252 (*O. sonnerati* Cuvier).

3643. **Opisthognathus macrognathum** Poey.

Florida Keys to Cuba.

Opisthognathus macrognathus Poey, Memorias, II, 1861, 284, Cuba.

Opisthognathus megastoma Günther, Cat., I, 1860, 255, Gulf of Mexico.

Opisthognathus scaphiurus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 417, Garden Key, Fla.

3644. *Opisthognathus lonchurum* Jordan and Gilbert.
Gulf of Mexico, in deep water; two specimens known, taken from the stomach of a red snapper at Pensacola, Fla.
Opisthognathus lonchurus Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 290, Snapper Banks off Pensacola, Fla.
3645. *Opisthognathus punctatum* Peters.
West coast of Mexico; Mazatlan; Magdalena Bay.
Opisthognathus punctatus Peters, Berl. Monatsber., 1869, 708, Mazatlan, Mexico.
3646. *Opisthognathus ommatum* Jenkins and Evermann.
Bay of Guaymas, Gulf of California.
Opisthognathus ommata Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 153, Guaymas, Sonora.
- Genus 1271. GNATHYPOPS⁸³ Gill.
Gnathypops Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 241 (*Opisthognathus mazillosus* Poey).
3647. *Gnathypops maxillosa* (Poey).
Cuba, north to Garden Key, Fla.
Opisthognathus maxillosus Poey, Memorias, II, 1861, 286, Cuba.
3648. *Gnathypops macrops* (Poey).
Coast of Cuba.
Opisthognathus macrops Poey, Memorias, II, 1861, 287, coast of Cuba.
3649. *Gnathypops cuvieri* (Cuvier and Valenciennes).
Bahia.
Opisthognathus cuvieri Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 504, Bahia (may be identical with *macrops*).
3650. *Gnathypops rhomalea* (Jordan and Gilbert).
Gulf of California.
Opisthognathus rhomaleus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 276, Santa Maria Cove, Lower California.
3651. *Gnathypops scopis* Jenkins and Evermann.
Gulf of California at Guaymas.
Gnathypops scopis Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 152, Guaymas, Sonora, Mexico.
3652. *Gnathypops snyderi* Jordan and Evermann.
Gulf of California.
Gnathypops snyderi Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2285, San Luis Gonzales Bay, Gulf of California.
3653. *Gnathypops mystacina* Jordan.
Gulf of Mexico; known from the Pensacola "Snapper Banks," from the stomach of a red snapper (*Neomænis blackfordi*).
Gnathypops mystacinus Jordan, Proc. U. S. Nat. Mus., VII, 1884, 37, Snapper Banks off Pensacola, Fla.
3654. *Gnathypops aurifrons* Jordan and Thompson.
Garden Key, Fla.
Gnathypops aurifrons Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 252, fig. 4, Garden Key, Fla.
- Genus 1272. LONCHOPISTHUS Gill.
Lonchopisthus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 241 (*Opisthognathus micrognathus* Poey).
3655. *Lonchopisthus micrognathus* (Poey).
Cuba.
Opisthognathus micrognathus Poey, Memorias, II, 1861, 287, Cuba.

⁸³ It is possible that some or all of the short-jawed forms are the females of species of *Opisthognathus*.

Family 268. URANOSCOPIDÆ. Stargazers

Genus 1273. ASTROSCOPUS Brevoort. *Stargazers.*

Astroscope Brevoort, in Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 20 (*Uranoscope anoplos* Cuvier and Valenciennes = *Uranoscope y-græcum* Cuvier and Valenciennes).

3656. *Astroscope y-græcum* (Cuvier and Valenciennes). *Stargazer.*
South Atlantic coast, from Cape Hatteras to the Caribbean Sea.
Uranoscope y-græcum Cuvier and Valenciennes, Hist. Nat. Poiss., III, 1829, 229 (308), locality unknown.
Uranoscope anoplos Cuvier and Valenciennes, loc. cit., VIII, 1831, 363 (493), Atlantic coast of North America.
3657. *Astroscope guttatus* Abbot. *Spotted stargazer.*
Atlantic coast of the United States, from Long Island to Virginia; not known south of Cape Hatteras.
Astroscope guttatus Abbott, Proc. Acad. Nat. Sci. Phila., XII, 1860, 365, pl. 7, Cape May, N. J.
3658. *Astroscope zephyreus* Gilbert and Starks.
Magdalena Bay, Lower California.
Astroscope zephyreus Jordan and Starks, Proc. U. S. Nat. Mus., XIX, 1896, 453, Magdalena Bay, Lower California.

Genus 1274. KATHETOSTOMA Günther.

Kathetostoma Günther, Cat., II, 1860, 231 (*Uranoscope lavis* Bloch and Schneider).

3659. *Kathetostoma averruncus* Jordan and Bollman.
Pacific Ocean off coast of Colombia, and Bay of Panama, in deep water.
Kathetostoma averruncus Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 163, off coast of Colombia, 8° 57' N., 79° 31' 30" W., at Albatross station 2800 in 7 fathoms.
3660. *Kathetostoma albigutta* (Bean).
Gulf of Mexico.
Kathetostoma albigutta Bean, Proc. U. S. Nat. Mus., XVIII, 1892, 121, Gulf of Mexico, at Albatross station 2403, 28° 42' 30" N., 85° 29' W.
- Genus 1275. EXCESTIDES Jordan and Thompson.
Excestides Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 253, (*Excestides egregius* Jordan and Thompson).
3661. *Excestides egregius* Jordan and Thompson.
Garden Key, Fla.
Excestides egregius Jordan and Thompson, Bull. U. S. Bur. Fish., XXIV, 1904, 253, fig. 5, Garden Key, Fla.

Family 269. DACTYLOSCOPIDÆ. Sand stargazers

Genus 1276. DACTYLOSCOPUS Gill.

Dactyloscope Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 132 (*D. tridigitatus* Gill).
Copragrammus Fowler, loc. cit., LVIII, 1906, 105 (*C. moorei* Fowler).

3662. *Dactyloscope tridigitatus* Gill. *Sand conger.*
West Indies, north to Key West.
Dactyloscope tridigitatus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 132, Barbados.
Copragrammus moorei Fowler, loc. cit., LVIII, 1906, 105, Hailer's Rock, Florida Keys.
3663. *Dactyloscope pectoralis* Gill.
Cape San Lucas, Lower California.
Dactyloscope pectoralis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 267, Cape San Lucas, Lower California.
3664. *Dactyloscope cinctus* Osburn and Nichols.
Gulf of California.
Dactyloscope cinctus Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 176, fig. 14, Cape San Lucas.

3665. *Dactyloscopus poeyi* Gill.
Cuba.
Dactyloscopus poeyi Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 266, Cuba.
3666. *Dactyloscopus lunaticus* Gilbert.
Gulf of California.
Dactyloscopus lunaticus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 99, Gulf of California.
- Genus 1277. GILLELLUS Gilbert.
Gillellus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 98 (*G. semicinctus* Gilbert).
3667. *Gillellus semicinctus* Gilbert.
Gulf of California; also off the Florida coast.
Gillellus semicinctus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 98, near north end of Gulf of California, at Albatross stations 2827, 24° 11' 45" N., 109° 55' W., and 2829, 22° 52' N., 109° 55' W., in 10 and 31 fathoms.
3668. *Gillellus arenicola* Gilbert.
Cape San Lucas, Lower California.
Gillellus arenicola Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 99, Cape San Lucas.
3669. *Gillellus ornatus* Gilbert.
Gulf of California.
Gillellus ornatus Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 558, Gulf of California.
- Genus 1278. ESLOSCOPUS Jordan and Evermann.
Esloscopus Jordan and Evermann, Check List, 1895, 465 (*Dactyloscopus zelotes* Jordan and Gilbert).
3670. *Esloscopus zelotes* (Jordan and Gilbert).
Panama.
Dactyloscopus zelotes Jordan and Gilbert, in Jordan and Evermann, Check List, 1895, 464, Panama.
- Genus 1279. DACTYLAGNUS Gill.
Dactylagnus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 505 (*D. mundus* Gill).
3671. *Dactylagnus mundus* Gill.
Carmen Island, Gulf of California.
Dactylagnus mundus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 505, Carmen Island, Gulf of California.
- Genus 1280. MYXODAGNUS Gill.
Myxodagnus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 269 (*M. opercularis* Gill).
3672. *Myxodagnus opercularis* Gill.
Cape San Lucas, Lower California.
Myxodagnus opercularis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 270, Cape San Lucas, Lower California.
- Family 270. CLINIDÆ
- Genus 1281. MNIERPES Jordan and Evermann.
Mnierpes Jordan and Evermann, Check List, 1895, 468 (*Clinus macrocephalus* Günther).
3673. *Mnierpes macrocephalus* (Günther).
Pacific coast of Central America; Panama.
Clinus macrocephalus Günther, Cat., III, 1861, 266, Pacific coast of Central America.
- Genus 1282. GOBIOCLINUS Gill.
Gobioclinus Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 103 (*Clinus gobio* Cuvier and Valenciennes).

3674. *Gobioclinus gobicus* (Cuvier and Valenciennes).

Lesser Antilles.

Clinus gobicus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 292 (395), Lesser Antilles.Genus 1283. *HISTIOCLINUS* Metzelaar.*Histioclinus* Metzelaar, Trop. Atl. Vissch., 1919, 157 (*H. veliger* Metzelaar).3675. *Histioclinus veliger* Metzelaar.

Caribbean Sea.

Histioclinus veliger Metzelaar, Trop. Atl. Vissch., 1919, 157, Bonaire.Genus 1284. *STARKSIA* Jordan and Evermann.*Starksia* Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 231, (*Labrosomus cremnobates* Gilbert).3676. *Starksia cremnobates* (Gilbert).

Gulf of California.

Labrosomus cremnobates Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 100, Gulf of California.Genus 1285. *ALLOCLINUS* Hubbs.*Alloclinus* Hubbs, Papers, Mich. Acad. Sci. Arts and Letters, VII, 1926 (1927), 351 (*Starksia holderi* Lauderbach).3677. *Alloclinus holderi* (Lauderbach).

Santa Catalina, Calif.

Starksia holderi Lauderbach, Proc. U. S. Nat. Mus., XXXII, 1907, 74, fig. 6, Santa Catalina Island.Genus 1286. *CRYPTOTREMA* Gilbert.*Cryptotrema* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 101 (*C. corallinum* Gilbert).3678. *Chryptotrema corallinum* Gilbert.

Coast of California, south of Point Conception.

Cryptotrema corallinum Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 101, coast of California, south of Point Conception.Genus 1287. *EXERPES* Jordan and Evermann.*Exerpes* Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 232 (*Auchenopterus asper* Jenkins and Evermann).3679. *Exerpes asper* (Jenkins and Evermann).

Guaymas, Mexico.

Auchenopterus asper Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 154, Guaymas, Mexico.Genus 1288. *CORALLICOLA* Jordan and Evermann.*Corallicola* Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2369 (*Cremnobates marmoratus* Steindachner).3680. *Corallicola marmoratum* (Steindachner). *Rockfish*.

Florida Keys to Cuba; Key West.

Cremnobates marmoratus Steindachner, Ichth. Beitr., V, 1876, 174, pl. 12, fig. 6, near Cuba.3681. *Corallicola nigripinne* (Steindachner).

Barbados.

Clinus nigripinnis Steindachner, Ichth. Notizen, VI, 1867, 45, Barbados.3682. *Corallicola altivelis* (Lockington).

La Paz, Lower California.

Cremnobates altivelis Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 116, La Paz, Lower California.Genus 1289. *AUCHENOPTERUS* Günther.*Auchenopterus* Günther, Cat., III, 1861, 275 (*A. monophthalmus* Günther; not *Auchenipterus* Cuvier and Valenciennes).*Cremnobates* Günther, Proc. Zool. Soc. Lond., 1861, 374 (same type; substitute name).*Tekla* Nichols, Copeia, No. 110, 1922, 69 (*Cremnobates fasciatus* Steindachner).

3683. *Auchenopterus monophthalmus* Günther.
Gulf of California to Panama.
Auchenopterus monophthalmus Günther, Cat., III, 1861, 275, Panama.
3684. *Auchenopterus integripinnis* (Rosa Smith).
Coast of California and southward to Todos Santos, Lower California.
Cremnobates integripinnis Rosa Smith, Proc. U. S. Nat. Mus., III, 1880, 147, La Jolla, near San Diego.
3685. *Auchenopterus mexicanus* Gilbert.
La Paz to Mazatlan, Mexico.
Auchenopterus mexicanus Gilbert, Proc. Calif. Acad. Sci., 3d ser., III, 1904, 269, Pl. XXIX, La Paz, Lower California.
3686. *Auchenopterus affinis* (Steindachner).
West Indies; Key West; St. Thomas.
Cremnobates affinis Steindachner, Ichth. Beitr., V, 1876, 178, St. Thomas.
3687. *Auchenopterus fasciatus* (Steindachner).
Florida Straits; north to Key West; Porto Rico.
Cremnobates fasciatus Steindachner, Ichth. Beitr., V, 1876, 176, Florida Straits.
3688. *Auchenopterus nox* (Jordan and Gilbert).
Key West, Fla.
Cremnobates nox Jordan and Gilbert, Proc. U. S. Nat. Mus., VII, 1884, 30, Key West.
3689. *Auchenopterus albicaudus* Evermann and Marsh.
Porto Rico.
Auchenopterus albicaudus Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 360, Arroyo, Porto Rico.
3690. *Auchenopterus fajardo* Evermann and Marsh.
Porto Rico.
Auchenopterus fajardo Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 361, Fajardo, Porto Rico.
3691. *Auchenopterus rubescens* Evermann and Marsh.
Porto Rico.
Auchenopterus rubescens Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 360, Puerto Real, Porto Rico.
3692. *Auchenopterus cingulatus* Evermann and Marsh.
Porto Rico.
Auchenopterus cingulatus Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 361, Ponce, Porto Rico.
3693. *Auchenopterus grandicomus* Rosen.
Bahamas.
Auchenopterus grandicomus Rosen, Fauna Bahamas, 1911, 69, Andros Island.
- Genus 1290. *AUCHENISTIUS* Evermann and Marsh.
Auchenistius Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 359 (*A. stahli* Evermann and Marsh).
3694. *Auchenistius stahli* Evermann and Marsh.
Porto Rico.
Auchenistius stahli Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 359, Ponce, Porto Rico.
- Genus 1291. *PARACLINUS* Mocquard.
Acanthoclinus Mocquard, Bull. Soc. Philom. Paris, X, 1885, 18 (*A. chaperi* Mocquard); name preoccupied.
Paraclinus Mocquard, loc. cit., I, 1888, 41 (*Acanthoclinus chaperi* Mocquard).
3695. *Paraclinus chaperi* (Mocquard).
Bay of Guanta, near Barcelona, in Venezuela.
Acanthoclinus chaperi Mocquard, Bull. Soc. Philom. Paris, X, 1885, 18, Bay of Guanta, Venezuela.

Genus 1292. ENNEAPTERYGIUS Rüppell.

Enneapterygius Rüppell, Neue Wirbelthiere, Fische, 1835, 2 (*E. pusillus* Rüppell).

Enneanectes Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 501 (*Tripterygium carminale* Jordan and Gilbert).

3696. Enneapterygius carminalis (Jordan and Gilbert).

Mazatlan, Mexico, and Caribbean Sea.

Tripterygium carminale Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 362, Mazatlan, Mexico.

Genus 1293. GILLIAS Evermann and Marsh.

Gillias Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 357 (*G. jordani* Evermann and Marsh).

3697. Gillias jordani Evermann and Marsh.

Porto Rico.

Gillias jordani Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899, (Dec. 19), 357, Cardona Lighthouse Reef, Ponce, Porto Rico.

Genus 1294. GIBBONSIA Cooper.

Gibbonsia Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109 (*Myxodes elegans* Cooper).

Blakea Steindachner, Ichth. Beitr., V, 1876, 148 (*Myxodes elegans* Cooper).

3698. Gibbonsia elegans (Cooper). Spotted kelpfish; Señorita.

Coast of southern California; Point Conception to Todos Santos.

Myxodes elegans Cooper, Proc. Calif. Acad. Nat. Sci., III, 1863, 109, San Diego; Santa Barbara.

Clinus ocellifer Mocquard, Bull. Soc. Philom. Paris, 1886, 44, California.

Clinus evides Jordan and Gilbert, Synopsis, 1883, 763, Monterey, Calif.

3699. Gibbonsia elegans montereyensis Hubbs.

Coast of southern California.

Gibbonsia elegans montereyensis Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII, 1926, 354, reef at Pacific Grove, Calif.

3700. Gibbonsia metzi Hubbs.

California coast, chiefly in tidepools.

Gibbonsia metzi Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII, 1926, 360 Pacific Grove, Calif.

Genus 1295. HETEROSTICHUS Girard.

Heterostichus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 143 (*H. rostratus* Girard).

3701. Heterostichus rostratus Girard. Kelpfish.

Coast of California from San Francisco to San Diego.

Heterostichus rostratus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 143, San Diego, Calif.

Genus 1296. NEOCLINUS Girard.

Neoclinus Girard, U. S. Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 114 (*N. blanchardi* Girard).

3702. Neoclinus blanchardi Girard.

Coast of California, Monterey to San Diego.

Neoclinus blanchardi Girard, U. S. Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 114, off San Diego, Calif.

Genus 1297. PTEROGNATHUS Jordan and Evermann.

Pterognathus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 57 (*Neoclinus satiricus* Girard); name only suggested but not adopted.

Pterognathus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2354 (*Neoclinus satiricus* Girard).

3703. Pterognathus satiricus (Girard).

Coast of California, from Monterey to Santa Barbara.

Neoclinus satiricus Girard, Proc. Acad. Nat. Sci. Phila., XI, 1859, 57, Monterey Bay.

Genus 1298. LABRISOMUS Swainson.

Labrisomus Swainson, Nat. Hist. Classn. Fishes, II, 1839, 277 (*Clinus pectinifer* Cuvier and Valenciennes = *Clinus nuchipinnis* Quoy and Gaimard).

Lepisoma DeKay, N. Y. Fauna: Fishes, 1842, 41, *L. cirrhosum* DeKay = *Clinus nuchipinnis* Quoy and Gaimard).

3704. *Labrisomus nuchipinnis* (Quoy and Gaimard).

West Indies; South Atlantic coast.

Clinus nuchipinnis Quoy and Gaimard, Voy. *Uranië*, Zool., 1824, 255, Bay of Rio de Janeiro.

Clinus pectinifer Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 276 (374), Bahia.

Clinus capillatus Cuvier and Valenciennes, loc. cit., 278 (377), Martinique.

Clinus canariensis Valenciennes, in Webb and Berthelot, Poiss. Îles Canaries, 1839, 60, Pl. XVII, fig. 3, Canary Islands.

Lepisoma cirrhosum DeKay, N. Y. Fauna: Fishes, 41, 1842, Florida.

3705. *Labrisomus heilneri* Nichols.

Bahamas.

Labrisomus heilneri Nichols, Amer. Mus. Novitates, XXVI, 1921, p. 2, fig. 2, Bahamas.

3706. *Labrisomus xanti* Gill.

Pacific coast of Mexico.

Labrisomus xanti Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 107, Cerro Blanco, Cape San Lucas.

3707. *Labrisomus herminier* (LeSueur).

St. Bartholomew, West Indies.

Blennius herminier LeSueur, Jour. Acad. Nat. Sci. Phila., IV, 1824, 361, St. Bartholomew, West Indies.

3708. *Labrisomus bucciferus* Poey.

Cuba.

Labrosomus bucciferus Poey, Synopsis, 1868, 399, Cuba.

3709. *Labrisomus lentiginosus* Bean.

Paget Parish, Bermudas.

Labrisomus lentiginosus Bean, Proc. Biol. Soc. Wash., XIX, 1906, 31, tide pool at Does Rock, Paget Parish, Bermudas.

3710-3711. *Labrisomus microlepidotus* Poey.

Cuba.

Labrosomus microlepidotus Poey, Anal. Soc. Española Hist. Nat., XIX, 1880, 246, Pl. VIII, fig. 2, Cuba.

Genus 1299-1300. MALACOTENUS Gill.

Malacotenus Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 103 (*Clinus delalandi* Cuvier and Valenciennes).

3712. *Malacotenus delalandi* (Cuvier and Valenciennes).

Coast of Brazil and the Pacific coast of Mexico.

Clinus delalandi Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 279 (378), Brazil.

Clinus zoster Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 361, Mazatlan.

3713. *Malacotenus ocellatus* (Steindachner).

Bahama Islands.

Clinus ocellatus Steindachner, Ichth. Beitr., V, 1876, 182, Bahama Islands.

3714. *Malacotenus varius* (Poey).

Cuba.

Myxodes varius Poey, Enumeratio, 1876, 132, pl. 5, fig. 2, Habana.

3715. **Malacoctenus macropus** (Poey).
Cuba.
Myxodes macropus Poey, Synopsis, III, 1868, 399, Habana.
3716. **Malacoctenus lugubris** (Poey).
Cuba.
Myxodes lugubris Poey, Enumeratio, 1876, 131, Cuba.
3717. **Malacoctenus gilli** (Steindachner).
Barbados.
Clinus gilli Steindachner, Ichth. Notizen, VI, 1867, 46, Barbados.
3718. **Malacoctenus bimaculatus** (Steindachner).
Small rocky islands north coast of Cuba.
Clinus bimaculatus Steindachner, Ichth. Beitr., V, 1876, 180, islands off Cuba.
3719. **Malacoctenus puertoricensis** Evermann and Marsh.
Porto Rico.
Malacoctenus puertoricensis Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 358, Hucars, Porto Rico.
3720. **Malacoctenus versicolor** (Poey).
Cuba.
Myxodes versicolor Poey, Enumeratio, 1876, 131, pl. 5, fig. 1, Cuba.
3721. **Malacoctenus biguttatus** (Cope).
New Providence, Bahamas.
Labrisomus biguttatus Cope, Trans. Amer. Phil. Soc. Phila., XIV, 1871, 473, New Providence, Bahamas.
- Genus 1301. **ERICTEIS** Jordan.
Ericteis Jordan, Bull. U. S. Fish Com., XXII, 1902, 543 (*E. kalisheræ* Jordan).
3722. **Ericteis kalisheræ** Jordan.
Bush Key, Tortugas.
Ericteis kalisheræ Jordan, Bull. U. S. Fish Com., XXII, 1902, 543, pl. 2, Bush Key, Fla.
- Genus 1302. **ACTEIS** Jordan.
Acteis Jordan, Bull. U. S. Fish Com., XXII, 1902, 543 (*Malacoctenus moorei* Evermann and Marsh).
3723. **Acteis moorei** (Evermann and Marsh).
Porto Rico.
Malacoctenus moorei Evermann and Marsh, Fishes of Porto Rico, in Bull. U. S. Fish Com., XX, 1900, 309, fig. 97, Culebra Island, Porto Rico.
3724. **Acteis culebræ** (Evermann and Marsh).
Porto Rico.
Malacoctenus culebræ Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 357, Culebra Island.

Family 271. BLENNIIDÆ

- Genus 1303. **BLENNIUS** Linnæus. *Blennies*.
Blennius Linnæus, Syst. Nat., ed. X, 1758, 256 (*B. galerita* Linnæus).
Salaria Forskål, Descr. Anim., 1777, 22 (*Blennius galerita* Linnæus).
Adonis Gronow, Cat. Fish., Ed. Gray, 1854, 93 (*A. pavoninus* Gronow = *Blennius ocellaris* Linnæus).
3725. **Blennius fabbri** Nichols.
Florida.
Blennius fabbri Nichols, Bull. Amer. Mus. Nat. Hist., XXVIII, 1910, 161, Miami, Fla.; perhaps young of *Chasmodes bosquianus*.
3726. **Blennius stearnsi** Jordan and Gilbert.
Gulf of Mexico.
Blennius stearnsi Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 300, Pensacola snapper banks.

3727. *Blennius fucorum* Cuvier and Valenciennes. *Seaweed blenny*.
Off the Azores; also off New York.
Blennius fucorum Cuvier and Valenciennes, Hist. Nat. Poiss., XI,
1836, 194 (263), pl. 324, 240 miles south of the Azores.
Blennius oceanicus Cuvier and Valenciennes, loc. cit., 195 (265), open
sea.
3728. *Blennius cristatus* Linnæus. *Rockfish*.
Tropical Atlantic.
Blennius cristatus Linnæus, Syst. Nat., Ed. X, 1758, 256, Indies; after
Gronow.
Blennius crinitus Cuvier and Valenciennes, Hist. Nat. Poiss., XI,
1836, 175 (237), La Rochelle, France.
Blennius nuchifilis Cuvier and Valenciennes, loc. cit., 186 (253), Île of
Ascension.
Blennius asterias Goode and Bean, Proc. U. S. Nat. Mus., V, 1882,
416, Garden Key, Fla.
3729. *Blennius favosus* Goode and Bean.
Gulf of Mexico; Garden Key, Fla.
Blennius favosus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882,
416, Garden Key, Fla.
3730. *Blennius pilicornis* Cuvier.
Coast of Brazil and north to the West Indies; recorded from Rio
Janeiro, Bahia, the Tortugas, and off the coast of Florida.
Blennius pilicornis Cuvier, Règne Anim., ed. 2, II, 1829, 237, coasts of
Europe, Rio Janeiro.
3731. *Blennius marmoreus* Poey.
Cuba.
Blennius marmoreus Poey, Enumeratio, 1876, 130, Cuba.
3732. *Blennius truncatus* Poey.
Cuba.
Blennius truncatus Poey, Memorias, II, 1861, 424, Cuba.
3733. *Blennius vinctus* Poey.
Cuba.
Blennius vinctus Poey, Repertorio, II, 1867, 243, Habana.
- Genus 1304. *LIPOPHRYS* Gill.
Pholis Fleming, Brit. Anim., 1828, 207 (*Blennius lævis*=*Blennius*
pholis Linnæus); name preoccupied.
Lipophrys Gill, Amer. Nat., XXX, June, 1896, 498 (*Blennius pholis*
Linnæus).
3734. *Lipophrys carolinus* (Cuvier and Valenciennes).
South Carolina.
Pholis carolinus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836,
204 (276), Carolina.
- Genus 1305. *SCARTELLA* Jordan.
Scartella Jordan, Proc. U. S. Nat. Mus., IX, 1886, 50 (*Blennius micro-*
stomus Poey).
Blenniulus Jordan and Evermann, Fishes North and Mid. Amer.,
1898, 2386 (*Blennius brevipinnis* Günther).
3735. *Scartella microstoma* (Poey).
Cuba.
Blennius microstomus Poey, Memorias, II, 1861, 288, Cuba.
3736. *Scartella brevipinnis* (Günther).
Pacific coast of Mexico, from Mazatlan to Panama.
Blennius brevipinnis Günther, Cat., III, 1861, 226, Pacific coast of
Central America.
- Genus 1306. *HYPLEUROCHILUS* Gill.
Hypleurochilus Gill, Cat. Fishes E. Coast of N. Amer., Suppl. Proc.
Acad. Nat. Sci. Phila., XIII, 1861, 44 (*Blennius multifilis* Girard=
Blennius geminatus Wood).

- 3737. *Hypleurochilus geminatus* (Wood). *Blenny*.**
 South Atlantic and Gulf coasts of United States.
Blennius geminatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1824, 278,
 Charleston, S. C.
Blennius multifilis Girard, Proc. Acad. Nat. Sci. Phila., X, 1858, 169,
 St. Joseph's Island, Tex.
- Genus 1307. HYPSOBLENNIUS Gill.**
Hypsoblennius Gill, Cat. Fishes E. Coast N. Amer., Suppl. Proc. Acad.
 Nat. Sci. Phila., XIII, 1861, 44 (*Blennius hentz* LeSueur).
Isesthes Jordan and Gilbert, Synopsis, 1883, 757 (*Blennius gentilis*
 Girard).
- 3738. *Hypsoblennius hentz* (LeSueur).**
 Coasts of North and South Carolina, south of Indian River, Fla.;
 locally common.
Blennius hentz LeSueur, Jour. Acad. Nat. Sci. Phila., 1st ser., IV, 1825,
 363, Charleston, S. C.
Blennius punctatus Wood, loc. cit., 278, Charleston, S. C.; not of
 Fabricius, 1780.
- 3739. *Hypsoblennius gilberti* (Jordan).**
 California, from Point Conception southward to Todos Santos; Santa
 Barbara Islands, among rocks.
Isesthes gilberti Jordan, Proc. U. S. Nat. Mus., V, 1882, 349, Santa
 Barbara, Calif.
- 3740. *Hypsoblennius gentilis* (Girard).**
 Coast of California from Monterey to Cape San Lucas.
Blennius gentilis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 149,
 Monterey, Calif.
- 3741. *Hypsoblennius piersoni* Gilbert and Starks.**
 Bay of Panama.
Hypsoblennius piersoni Gilbert and Starks, Mem. Calif. Acad. Sci., IV,
 1904, 191, Pl. XXXII, Bay of Panama.
- 3742. *Hypsoblennius striatus* (Steindachner).**
 Panama.
Blennius striatus Steindachner, Ichth. Beitr., V, 1876, 15, Panama.
- 3743. *Hypsoblennius ionthas* (Jordan and Gilbert).**
 Pensacola, Fla.
Isesthes ionthas Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
 299, Pensacola.
Isesthes scrutator Jordan and Gilbert, loc. cit., 300, Pensacola; Galveston.
- Genus 1308. CHASMODES Cuvier and Valenciennes.**
Chasmodes Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 218
 (295) (*Blennius bosquianus* Lacépède).
Blenitrachus Swainson, Classn. Fish., II, 1839, 78, 274 (*Pholis quadri-*
fasciatus Wood).
- 3744. *Chasmodes bosquianus* (Lacépède). *Banded blenny*; *Bosc's shanny*;
Four-banded blenny.**
 New York to Florida; common southward in shallow water.
Blennius bosquianus Lacépède, Hist. Nat. Poiss., II, 1800, 493, South
 Carolina; female.
- 3745. *Chasmodes quadrifasciatus* (Wood).**
 Probably south Atlantic coast of United States.
Pholis quadrifasciatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1824,
 282, locality unknown; probably South Carolina.
- 3746. *Chasmodes saburræ* Jordan and Gilbert.**
 Pensacola Bay, Fla.
Chasmodes saburræ Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882,
 298, Pensacola, Fla.
- 3747. *Chasmodes novemlineatus* (Wood). *Nine-lined shanny*.**
 South Atlantic coast of the United States, South Carolina to Florida.
Pholis novemlineatus Wood, Jour. Acad. Nat. Sci. Phila., IV, 1825, 280,
 Charleston Harbor, S. C.

- 3748. *Chasmodes jenkinsi* Jordan and Evermann.**
Guaymas, Sonora, Mexico.
Chasmodes jenkinsi Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 232, pl. 39, Guaymas, Mexico.
- Genus 1309. HOMESTHES Gilbert.**
Homesthes Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2394 (*H. caulopus* Gilbert).
- 3749. *Homesthes caulopus* Gilbert.**
Panama Bay.
Homesthes caulopus Gilbert, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2394, Panama.
- Genus 1310. SCARTICHTHYS Jordan and Evermann.**
Scartes Jordan and Evermann, Check List, 1895, 471 (*Salarias salarias rubropunctatus* Cuvier and Valenciennes); name preoccupied.
Scartichthys Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2395 (*Salarias rubro-punctatus* Cuvier and Valenciennes).
- 3750. *Scartichthys rubropunctatus* (Cuvier and Valenciennes).**
Coast of Peru and Chile, north to Panama.
Salarias rubro-punctatus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 257 (348), Juan Fernandez, off Chile.
- Genus 1311. RUPISCARTES Swainson.**
Alticus Commerson, in Lacépède, Hist. Nat. Poiss., II, 1800, 458 (*A. saltatorius* Commerson); not binomial and not accepted by Lacépède.
Alticus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 337; casual notice; the name not accepted as that of a genus (*Blennius saliens*⁶⁹ = *Salarias alticus* Cuvier and Valenciennes).
Rupiscartes Swainson, Class. Fish., II, 1839, 275 (*Salarias atlanticus* Cuvier and Valenciennes).
- 3751. *Rupiscartes atlanticus* (Cuvier and Valenciennes).**
Tropical America on both coasts, north to West Indies and to Todos Santos, Lower California; abundant.
Salarias atlanticus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 238 (321), Atlantic Ocean.
- Genus 1312. ENTOMACRODUS Gill.**
Entomacrodus Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 168 (*E. nigricans* Gill).
- 3752. *Entomacrodus chiostictus* (Jordan and Gilbert).**
Pacific coast of Mexico.
Salarias chiostictus Jordan and Gilbert, Synopsis, 1883, 363, Mazatlan, Mexico.
- 3753. *Entomacrodus margaritaceus* (Poey).**
Cuba.
Salarias margaritaceus Poey, Memorias, II, 1861, 289, Cuba.
- 3754. *Entomacrodus decoratus* Poey.**
Cuba.
Entomacrodus decoratus Poey, Synopsis, 1868, 398, Cuba.
- 3755. *Entomacrodus nigricans* Gill.**
West Indies.
Entomacrodus nigricans Gill, Proc. Acad. Nat. Sci. Phila., XI, 1859, 168, Barbados.
- 3756. *Entomacrodus cruentatus* Garman.**
Off Cocos Island in deep water.
Entomacrodus cruentatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 123, Pl. L; off Cocos Island, Panama.
- Genus 1313. SALARICHTHYS Guichenot.**
Salarichthys Guichenot, Mém., Soc. Sci. Nat. Cherbourg, XIII, 1868, 96 (*Salarias vomerinus* Cuvier and Valenciennes = *Salarias textilis* Cuvier and Valenciennes).

⁶⁹ "Un petit *salarias* qui nous parait être celui, la même pour lequel Commerson a établi son genre *Alticus*."

- 3757. *Salarichthys textilis*** Quoy and Gaimard.
West Indies, from Bermudas to Brazil.
Salaris textilis Quoy and Gaimard, in Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 227 (307), Ascension Island.
Salaris vomerinus Cuvier and Valenciennes, loc. cit., 258 (349), Bahia.
- Genus 1314. BRANNERELLA** Gilbert.
Brannerella Gilbert, Proc. Wash. Acad. Sci., II, 1900, 180 (*B. brasiliensis* Gilbert).
- 3758. *Brannerella brasiliensis*** Gilbert.
Brazil, north to Curaçao, in the Caribbean Sea.
Brannerella brasiliensis Gilbert, Proc. Wash. Acad. Sci., II, 1900, 180, Maceio, Brazil.
- 3759. *Brannerella sluiteri*** Metzelaar.
Caribbean Sea.
Brannerella sluiteri Metzelaar, Trop. Atl. Vissch., 1919, 155, Bonaire.
- Genus 1315. OPHIOBLENNIUS** Gill.
Blennophis Valenciennes, in Webb and Barthelot, Îles Canaries, Poiss., 1844, 60 (*B. webbii* Valenciennes), name preoccupied.
Ophioblennius Gill, Proc. Acad. Nat. Sci. Phila., XII, 1860, 103 (*B. webbii* Valenciennes); substitute for *Blennophis* Valenciennes, not *Blennophis* Swainson, a genus of *Clinidæ*.
- 3760. *Ophioblennius webbii*** (Valenciennes).
West Indies and Canary Islands.
Blennophis webbii Valenciennes, in Webb and Barthelot, Îles Canaries, Poiss., 1839, 60, pl. 20, fig. 1, Fort Aventura, Canary Islands.
- 3761. *Ophioblennius steindachneri*** Jordan and Evermann.
Pacific coast of Mexico.
Ophioblennius steindachneri Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2401, Tres Marias Islands; after Steindachner.
- Genus 1316. CORALLIOZETUS** Evermann and Marsh.
Coralliozetus Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 362 (*C. cardonæ* Evermann and Marsh).
- 3762. *Coralliozetus cardonæ*** Evermann and Marsh.
Porto Rico.
Coralliozetus cardonæ Evermann and Marsh, Rept. U. S. Fish Com., XXV, 1899 (Dec. 19), 362, reef at Cardona Light House, Playa de Ponce, Porto Rico.
- Family 272. EMBLEMARIIDÆ**
- Genus 1317. EMBLEMARIA** Jordan and Gilbert.
Emblemaria Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 627 (*E. nivipes* Jordan and Gilbert).
- 3763. *Emblemaria atlantica*** Jordan and Evermann.
Snapper Banks off Pensacola; Gulf of Mexico.
Emblemaria atlantica Jordan and Evermann, Fishes North and Mid. Amer., 1908, 2402, snapper banks off Pensacola, Fla.
- 3764. *Emblemaria nivipes*** Jordan and Gilbert.
Pearl Island near Panama.
Emblemaria nivipes Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 627, Pearl Island, near Panama.
- 3765. *Emblemaria oculocirris*** Jordan.
Gulf of California.
Emblemaria oculocirris Jordan, in Gilbert, Proc. U. S. Nat. Mus., XIX, 1896, 456, La Paz.
- 3766. *Emblemaria pandionis*** Evermann and Marsh.
Porto Rico.
Emblemaria pandionis Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900, 318, between Vieques and Culebra Islands.

3767. Emblemaria marki Mowbray.

Bermudas.

Emblemaria marki Mowbray, in Bean, Proc. Biol. Soc. Wash., XXV, 1912, 126, Hamilton Harbor, Bermudas.**Genus 1318. ACANTHEMBLEMARIA** Metzelaar.*Acanthemblemaria* Metzelaar, Trop. Atl. Vissch., 1919, 159 (*A. spinosa* Metzelaar).**3768. Acanthemblemaria spinosa** Metzelaar.

Caribbean Sea.

Acanthemblemaria spinosa Metzelaar, Trop. Atl. Vissch., 1919, 159, fig. 53, Curaçao.**Family 273. ATOPOCLINIDÆ****Genus 1319. ATOPOCLINIS** Vaillant.*Atopoclinus* Vaillant, Bull. Soc. Philom. Paris, ser. 8, VI, 1894, 73 (*A. ringens* Vaillant).**3769. Atopoclinus ringens** Vaillant.

Gulf of California.

Atopoclinus ringens Vaillant, Bull. Soc. Philom., ser. 8, VI, 1894, 74, Gulf of California.**Family 274. CHÆNOPSIDÆ****Genus 1320. CHÆNOPSIS** Gill.*Chænopsis* Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1863, 141, Pl. 3, fig. 3 (*C. ocellatus* Poey).*Lucioblennius* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 103 (*L. alepidotus* Gilbert).**3770. Chænopsis ocellata** Poey.

Matanzas, Cuba.

Chænopsis ocellatus Poey, in Gill, Ann. Lyc. Nat. Hist. N. Y., VIII, 1863, 143, Matanzas, Cuba.**3771. Chænopsis alepidota** (Gilbert).

Gulf of California; Avalon Bay, Calif.

Lucioblennius alepidotus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 103, Lower California.**3772. Chænopsis lucius** (Osburn and Nichols).

Gulf of California.

Lucioblennius lucius Osburn and Nichols, Bull. Amer. Mus. Nat. Hist., XXXV, 1916, 179, fig. 15, San Jose Island, Gulf of California.**Genus 1321. PHOLIDICHTHYS** Bleeker.*Pholidichthys* Bleeker, Boera, in Natur. Tijd. Neder. Indie, XI, 1856, 406 (*P. leucotænia* Bleeker).**3773. Pholidichthys anguilliformis** Lockington.

Gulf of California.

Pholidichthys anguilliformis Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 118, San Jose Island, Lower California.**Genus 1322. PSEDNOBLENNIUS** Jenkins and Evermann.*Pseudoblennius* Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 156 (*P. hypacanthus* Jenkins and Evermann).**3774. Pseudoblennius hypacanthus** Jenkins and Evermann.

Gulf of California at Guaymas, Sonora, Mexico.

Pseudoblennius hypacanthus Jenkins and Evermann, Proc. U. S. Nat. Mus., XI, 1888, 156, Guaymas, Mexico.**Genus 1323. STATHMONOTUS** Bean.*Stathmonotus* Bean, Proc. U. S. Nat. Mus., VIII, 1885, 191 (*S. hemphillii* Bean).**3775. Stathmonotus hemphillii** Bean.

Key West, Fla.

Stathmonotus hemphillii Bean, Proc. U. S. Nat. Mus., VIII, 1885, 191, pl. 13, Key West, Fla.

3776. *Stathmonotus tekla* Nichols.

Key West, Fla.

Stathmonotus tekla Nichols, Bull. Amer. Mus. Nat. Hist., XXVIII, 1910, 161, fig. 1c. XXX, Pl. XI, fig. 2, Key West, Fla.**Family 275. CEBIDICHTHYIDÆ****Genus 1324. CEBIDICHTHYS Ayres.***Cebidichthys* Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 59 (*Apodichthys violaceus* Girard).**3777. *Cebidichthys violaceus* (Girard).**

Coast of California from Crescent City to Carpenteria.

Apodichthys violaceus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150, Monterey, Calif.*Cebidichthys cristagalli* Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 58, San Francisco.**Family 276. CHIROLOPHIDÆ****Genus 1325. BRYOSTEMMA Jordan and Starks.***Bryostemma* Jordan and Starks, Proc. Calif. Acad. Sci. 2d ser., V, 1895, 841 (*Blennius polyactocephalus* Pallas).**3778. *Bryostemma polyactocephalum* (Pallas).**

Northern Japan and Kamchatka to Puget Sound.

Blennius polyactocephalus Pallas, Zool. Rosso-Asiat., III, 1811, 179, Kamchatka.*Chirolophus japonicus* Herzenstein, Mélanges Biologiques Soc. Sci. Petersb., XIII, 1890, 123, Yezo, Japan.**3779. *Bryostemma nugator* Jordan and Williams.**

Puget Sound.

Bryostemma nugator Jordan and Williams, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 843, pl. 101, Seattle, Wash.**3780. *Bryostemma decoratum* Jordan and Snyder.**

Point Orchard, Wash.

Bryostemma decoratum Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 615, Point Orchard, near Seattle, Wash.**3781. *Bryostemma tarsodes* Jordan and Snyder.**

Unalaska.

Bryostemma tarsodes Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 614, Unalaska.**Genus 1326. BRYOLOPHUS Jordan and Snyder.***Bryolophus* Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 617 (*B. lysimus* Jordan and Snyder).**3782. *Bryolophus lysimus* Jordan and Snyder.**

Unalaska.

Bryolophus lysimus Jordan and Snyder, Proc. U. S. Nat. Mus., XXV, 1903, 617, Unalaska.**Genus 1327. GYMNOCLINUS Gilbert and Burke.***Gymnoclinus* Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 86 (*G. cristulatus* Gilbert and Burke).**3783. *Gymnoclinus cristulatus* Gilbert and Burke.**

Bering Island.

Gymnoclinus cristulatus Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 86, fig. 30, Nikolski, Bering Island.**Family 277. PHOLIDÆ****Genus 1328. APODICHTHYS Girard.***Apodichthys* Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150 (*A. flavidus* Girard).

3784. *Apodichthys flavidus* Girard.

Point Conception to Vancouver Island.

Apodichthys flavidus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150, Presidio (San Francisco), Calif.*Apodichthys virescens* Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 55 (54), San Francisco.*Apodichthys sanguineus* Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 279, California.*Apodichthys inornatus* Gill, loc. cit., 279, Puget Sound.**3785. *Apodichthys univittatus* Lockington.**

Lower California.

Apodichthys univittatus Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 119, Lower California, probably from the Gulf.**Genus 1329. *XERERPES* Jordan and Gilbert.***Xererpes* Jordan and Gilbert, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 846 (*Apodichthys fucorum* Jordan and Gilbert).**3786. *Xererpes fucorum* (Jordan and Gilbert).**

Coast of California.

Apodichthys fucorum Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 139, Point Pinos, near Monterey, Calif.**Genus 1330. *ULVICOLA* Gilbert and Starks.***Ulvicola* Gilbert and Starks, Proc. U. S. Nat. Mus., XIX, 1896, 455 (*U. sanctæ-rosæ* Gilbert and Starks).**3787. *Ulvicola sanctæ-rosæ* Gilbert and Starks.**

Santa Rosa Island, coast of California.

Ulvicola sanctæ-rosæ Gilbert and Starks, Proc. U. S. Nat. Mus., XIX, 1896, 453, Santa Rosa Island, Calif.**Genus 1331. *PHOLIS* Gronow.***Pholis* Gronow, Acta Helvet., IV, 1760, 259 (*Blennius gunnellus* Linnæus).*Pholis* Scopoli, Introd. Hist. Nat., 1777, 456 (*Blennius gunnellus* Linnæus).*Muranoides* Lacépède, Hist. Nat. Poiss., II, 1800, 324 (*Muranoides sujef* Lacépède).*Centronotus* Schneider, Systema, ed. Bloch, 1801, 165 (*Centronotus fasciatus* Schneider).*Dactyleptus* Rafinesque, Anal. Nat., 1815, 82; substitute for *Muranoides*.*Gunnellus* Fleming, Brit. Anim., 1828, 207 (*G. vulgaris* Fleming = *Blennius**gunnellus* Linnæus).*Centronotus* Cuvier, Règne Anim., ed. 2, II, 1829, 239 (*Blennius gunnellus* Linnæus).*Ophisomus* Swainson, Classn. Anim., II, 1839, 279 (*Blennius gunnellus* Linnæus).*Urocentrus* Kner, Sitzber. K. Akad. Wiss. Wien, LVIII, 1868, 51 (*U. pictus* Kner).**3788. *Pholis gunnellus* (Linnæus). *Gunnel*; *Butterfish*; *Rockfish*.**

North Atlantic, south to Cape Cod.

Blennius gunnellus Linnæus, Syst. Nat., Ed. X, 1758, 257, Atlantic Ocean.*Ophidion imberbe* Linnæus, loc. cit., 259, Europe.*Blennius europæus* Olafsen, Reise Island, I, 1772, 81, Iceland.*Blennius muranoides* Sujef, Act. Petrop., II, 1779, 195, no locality, probably Baltic.*Ophidium mucronatum* Mitchill, Trans. Lit. and Phil. Soc. N. Y., I, 1815, 361, Pl. I, fig. 1, New York.*Gunnellus vulgaris* Fleming, British Anim., 1842, 207, England.

- 3789. *Pholis fasciatus*** (Bloch and Schneider).
Greenland to Alaska and Japan.
Centronotus fasciatus Bloch and Schneider, Syst. Ichth., 1801, 165, pl. 37, fig. 1, Tranquebar.
Gunnellus grælandicus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 326 (442), pl. 340, Greenland; after Bloch and Schneider.
? *Gunnellus murænoïdes* Valenciennes, in Cuvier, Règne Anim., Poiss., ed. 2, 1829, pl. 78, fig. 2, 916; after Bloch and Schneider.
Blennius tænia Pallas, Zoogr. Rosso-Asiat., III, 1811, 178, Kuril Islands.
Murænoides maxillaris Bean, Proc. U. S. Nat. Mus., IV, 1881, 147, St. Paul Island, Alaska.
- 3790. *Pholis ornatus*** (Girard).
San Francisco to Alaska.
Gunnellus ornatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 149, Presidio (San Francisco), Calif.
Centronotus lætus Cope, Proc. Amer. Phil. Soc., XIII, 1873, 27, Sitka or Unalaska.
- 3791. *Pholis gilli*** Evermann and Goldsborough.
Bering Sea.
Pholis gilli Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 337, fig. 110, Bering Sea.
- Genus 1332. RHODYMENICHTHYS** Jordan and Evermann.
Rhodymenichthys Jordan and Evermann, Check List, 1895, 474 (*Gunnellus ruberrimus* Cuvier and Valenciennes = *Blennius dolichogaster* Pallas).
- 3792. *Rhodymenichthys dolichogaster*** (Pallas). *Butterfish*.
Okhotsk Sea to San Francisco.
Blennius dolichogaster Pallas, Zoogr. Rosso-Asiat., III, 1811, 175, Kamchatka.
Gunnellus ruberrimus Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 324 (440), Kuril Islands; after Pallas.
- Genus 1333. ASTERNOPTERYX** Rüppell.
Asternopteryx Rüppell, in Günther, Cat., III, 1861, 288 (*A. gunelliformis* Rüppell).
- 3793. *Asternopteryx gunelliformis*** Rüppell.
Greenland.
Asternopteryx gunelliformis Rüppell, in Günther, Cat., III, 1861, 288, Greenland; type in Senckenberg Museum, Frankfurt; a second specimen from Greenland examined by us.
- Genus 1334. ANOPLARCHUS** Gill.
Anoplarchus Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 261 (*A. purpurescens* Gill).
- 3794. *Anoplarchus cristagalli*** (Günther).
Alaska to San Francisco.
Centronotus cristagalli Günther, Cat., III, July, 1861, 289, Vancouver Island.
Anoplarchus purpurescens Gill, Proc. Acad. Nat. Sci. Phila., XIII, Sept., 1861, 262, Washington Territory.
- 3795. *Anoplarchus cristagalli archolepis*** Hubbs.
Coast of central California.
Anoplarchus purpurescens archolepis Hubbs, Papers Mich. Acad. Sci., Arts and Letters, VII, 1926, 375, Reef at Carmel, Calif.
- 3796. *Anoplarchus insignis*** Gilbert and Burke.
Attu Island.
Anoplarchus insignis Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 88, fig. 32, Attu Island, Bering Sea.
- Genus 1335. PLECTOBRANCHUS** Gilbert.
Plectobranhus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 102 (*P. evides* Gilbert).

3797. *Plectobranchnus evides* Gilbert.

Coasts of Oregon and Washington.

Plectobranchnus evides Gilbert, Proc. U. S. Nat. Mus., XIII, 1898, 102, coasts of Oregon and Washington.**Family 278. XIPHISTERIDÆ****Genus 1336. XIPHISTER** Jordan and Gilbert.*Xiphidion* Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 119 (*X. mucosum* Girard); name preoccupied in *Orthoptera*.*Xiphister* Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 135 (*Xiphidion mucosum* Girard).**3798. *Xiphister mucosus* (Girard).**

Monterey to Alaska.

Xiphidion mucosum Girard, Pac. R. R. Surv., X, pt. 4, Fishes, 1858, 119, South Farallon Island, off California.*Xiphidium cruereum* Cope, Proc. Amer. Phil. Soc., XIII, 1873, 27, Sitka, Alaska.**Genus 1337. EPIGEICHTHYS** Hubbs.*Epigeichthys* Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII, 1926 (*Xiphister rupestris* Jordan and Gilbert).**3799. *Epigeichthys atropurpureus* (Kittlitz).**

Pacific coast of America from Alaska to Monterey.

Ophidium atropurpureum Kittlitz, Denkwürd. einer Reise Russ.-Amer., I, 1858, 225, Alaska.*Xiphister rupestris* Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 137, Monterey, Calif.**Genus 1338. PHYTICHTHYS** Hubbs.*Xiphistes* Jordan and Starks, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 846 (*Xiphistes chirus* Jordan and Gilbert); name preoccupied in insects.*Phytichthys* Hubbs, in Jordan, Class. Fishes, 1923, 234 (*Xiphister chirus* Jordan and Gilbert).**3800. *Phytichthys chirus* (Jordan and Gilbert).**

Monterey to Alaska.

Xiphister chirus Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 135, Point Pinos, near Monterey, Calif.*Xiphistes ulvæ* Jordan and Starks, Fishes Puget Sound, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 847, pl. 102, Waadda Island, Neah Bay.**3801. *Phytichthys versicolor* (Gilbert and Burke).**

Bering Sea.

Xiphistes versicolor Gilbert and Burke, Bull. U. S. Bur. Fish., XXX, 1910, 88, fig. 33; Agattu, Bering Sea.**Family 279. STICHÆIDÆ****Genus 1339. STICHÆUS** Reinhardt.*Stichæus* Reinhardt, K. Dansk. Vidensk. Selsk. Skrift. Natur. og Math. Afhandl., VI, 1837, CX (*Blennius punctatus* Fabricius).*Notogrammus* Bean, Proc. U. S. Nat. Mus., IV, 1881, 147 (*N. rothrocki* Bean); young example.**3802. *Stichæus punctatus* (Fabricius). Spotted snake blenny.**

Arctic seas from Greenland to northern Siberia, south to Bristol Bay and Newfoundland.

Blennius punctatus Fabricius, Fauna Grœnlandica, 1780, 153, Greenland.*Notogrammus rothrocki* Bean, Proc. U. S. Nat. Mus., IV, 1881, 146, Flover Bay and Cape Lisburne, Siberia.**Genus 1340. PLAGIOGRAMMUS** Bean.*Plagiogrammus* Bean, Proc. U. S. Nat. Mus., XVI, 1893, 699 (*P. hopkinsi* Bean).**3803. *Plagiogrammus hopkinsi* Bean.**

Monterey Bay, Calif.

Plagiogrammus hopkinsi Bean, Proc. U. S. Nat. Mus., XVI, 1893, 700, with fig. on p. 699; Monterey, Calif.

Genus 1341. ULVARIA Jordan and Evermann.

Ulvaria Jordan and Evermann, Check List, 1895, 475 (*Pholis subbifurcatus* Storer).

3804. *Ulvaria subbifurcata* (Storer). *Radiated shanny*.

North Atlantic, south of Cape Cod.

Pholis subbifurcatus Storer, Rept. Fish. Mass., 1839, 63, Nahant, Mass.

Genus 1342. EUMESOGRAMMUS Gill.

Eumesogrammus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 210

(*Clinus præcisus* Krøyer).

3805. *Eumesogrammus præcisus* (Krøyer).

Greenland.

?*Clinus præcisus* Krøyer, Naturh. Tidsskr., I, 1837, 25, Greenland.

Clinus unimaculatus Reinhardt, Dansk. Vidensk. Selsk., VII, 1838, 114, 121, Greenland.

Family 280. LUMPENIDÆ**Genus 1343. LEPTOCLINUS** Gill.

Ctenodon Nilsson, Scand. Fauna, IV, 1853, 190 (*Clinus maculatus* Fries); name preoccupied.

Leptoclinus Gill, Cat. Fish. E. coast N. Amer., Suppl., Proc. Acad. Nat. Sci. Phila., XIII, 1861, 45 (*Clinus aculeatus* Reinhardt=*Clinus maculatus* Fries).

3806. *Leptoclinus maculatus* (Fries). *Langbarn*.

North Atlantic coasts of Europe; this or some closely similar species is recorded from Bering Sea, Robben Island, Aleutian Islands, and Hood Canal, Puget Sound.

Clinus maculatus Fries, Kgl. Vet. Ak. Handl., 1837, 51, Bohuslän, Sweden.

Clinus aculeatus Reinhardt, K. Dansk. Vid. Selsk. Natur. Afh., VII, 1838, 114, 122, Spitzbergen.

Genus 1344. POROCLINUS Bean.

Poroclinus Bean, Proc. U. S. Nat. Mus., XIII, 1890, 40 (*P. rothrocki* Bean).

3807. *Poroclinus rothrocki* Bean.

Between Nagai and Big Koniush Islands, Alaska.

Poroclinus rothrocki Bean, Proc. U. S. Nat. Mus., XIII, 1890, 40, Albatross station 2952, lat. 55° 15' N., long. 159° 37' W., in 58 fathoms.

Genus 1345. ANISARCHUS Gill.

Anisarchus Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 209 (*Clinus medius* Reinhardt).

3808. *Anisarchus medius* (Reinhardt).

Greenland to Norway and Spitzbergen; this or a similar species on coasts of southern and central Alaska.

Clinus medius Reinhardt, K. Dansk. Vidensk. Selsk. Skrift. Afh., VII, 1838, 114, 121, Greenland.

Genus 1346. LUMPENUS Reinhardt.

Lumpenus Reinhardt, Dansk. Vidensk. Selsk. Natur., VI, 1837, CX (*Blennius lumpenus* Fabricius=*Gunnellus fabricii* Cuvier and Valenciennes).

Leptogunnellus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 26 (*L. gracilis* Ayres=*Blennius anguillaris* Pallas).

Centrobrennius Gill, Proc. Acad. Nat. Sci. Phila., XVI, 1864, 209 (*Lumpenus nubilus* Richardson=*Gunnellus fabricii* Cuvier and Valenciennes).

Leptobrennius Gill, loc. cit., 1864, 209 (*Blennius serpentinus* Storer=*Blennius lampetæformis* Walbaum).

3809. *Lumpenus gracilis* (Ayres).

San Francisco to Alaska.

Blennius anguillaris Pallas, Zoogr. Rosso-Asiat., III, 1811, 176, about Kamchatka; no definite locality; not of Peck.

Leptogunnellus gracilis Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 26, San Francisco.

3810. *Lumpenus mackayi* Gilbert.

Nushagak River, Alaska.

Lumpenus mackayi Gilbert, Rept. U. S. Fish Com., XIX, 1893, 450, pl. 32, Nushagak River, Alaska.**3811. *Lumpenus fabricii* (Cuvier and Valenciennes).**

Arctic seas; Greenland, Gulf of St. Lawrence, Wellington Sound, Bristol Bay, and other localities in Bering Sea.

Gunnellus fabricii Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836, 317 (431), Greenland.*Lumpenus nubilus* Richardson, Last Arctic Voyage, Fishes, 1855, 259, pl. 28, Wellington Sound.**3812. *Lumpenus lampetræformis* (Walbaum). *Snake blenny*; *Tangbrosme*;
Eel blenny; *Snakefish*.**

North Atlantic and Arctic, on both shores; south to Sweden and Greenland; rarely to Cape Cod.

Blennius lampetraformis Walbaum, Artedi Pisc., III, 1792, 184, Iceland. *Centronotus islandicus* Schneider, ed. Bloch, Syst. Ichth., 1801, 167, Iceland.? *Clinus nebulosus* Fries, Vet. Akad. Handl., 1837, 55, Bohuslän, Sweden.? *Clinus mohri* Krøyer, Naturrh. Tidsskr., I, 1837, R. 32, Iceland.*Blennius gracilis* Stuvitz, Nye Mag. for Naturvid., I, 1838, 406, west coast of Norway.*Blennius serpentinus* Storer, Proc. Bost. Soc. Nat. Hist., III, 1848, 30, Massachusetts Bay.**Genus 1347. LUMPENELLA Hubbs.***Lumpenella* Hubbs, Papers Mich. Acad. Sci. Arts and Letters, VII, 1926, 378 (*Lumpenus longirostris* Evermann and Goldsborough).**3813. *Lumpenella longirostris* (Evermann and Goldsborough).**

Southeastern Alaska.

Lumpenus longirostris Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 340, fig. 115, Lynn Canal, Alaska.**Family 281. PTILICHTHYIDÆ****Genus 1348. PTILICHTHYS Bean.***Ptilichthys* Bean, Proc. U. S. Nat. Mus., IV, 1881, 157 (*P. goodei* Bean).**3814. *Ptilichthys goodei* Bean.**

Aleutian Islands.

Ptilichthys goodei Bean, Proc. U. S. Nat. Mus., IV, 1881, 157, Port Levasheff, Unalaska.**Family 282. CRYPTACANTHODIDÆ****Genus 1349. CRYPTACANTHODES Storer.***Cryptacanthodes* Storer, Rept. Fish. Mass., 1839, 27 (*C. maculatus* Storer).**3815. *Cryptacanthodes maculatus* Storer. *Wrymouth*; *Ghostfish*.**

North Atlantic, south to Cape Cod.

Cryptacanthodes maculatus Storer, Rept. Fish. Mass., 1839, 28, Massachusetts.*Pieraser borealis* DeKay, New York Fauna: Fishes, 1842, 316, New York; after Peck.*Cryptacanthodes inornatus* Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 332, coast of Massachusetts.**Genus 1350. LYCONNECTES Gilbert.***Lycnectes* Gilbert, Rept. U. S. Fish Com., XIX, 1893, 452 (*L. aleutensis* Gilbert).**3816. *Lycnectes aleutensis* Gilbert.**

Aleutian Islands.

Lycnectes aleutensis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 452, pl. 34, near Unalaska.**Genus 1351. DELOLEPIS Bean.***Delolepis* Bean, Proc. U. S. Nat. Mus., IV, 1881, 465 (*D. virgatus* Bean).

3817. *Delolepis giganteus* Kittlitz.

Coasts of British Columbia and southern Alaska, south to Puget Sound.
Delolepis giganteus Kittlitz, Denk. Reise Russ. Amer., 226, 1858, Siberia.

Delolepis virgatus Bean, Proc. U. S. Nat. Mus., IV, 1881, 466, Kingcombe Inlet, British Columbia, and Port Wrangel, Alaska.

Family 283. ANARHICHADIDÆ**Genus 1352. ANARHICHAS Linnæus.**

Anarhichas Linnæus, Syst. Nat., Ed. X, 1758, 247 (*A. lupus* Linnæus).

3818. *Anarhichas lupus* Linnæus. *Wolfish*.

North Atlantic, south to Cape Cod and France: rather common in America and Europe.

Anarhichas lupus Linnæus, Syst. Nat., Ed. X, 1758, 247, no definite locality.

Anarhichas strigosus Gmelin, Syst. Nat., Tome I, Pt. III, 1789, 1144, British seas.

Anarrhichas vomerinus Agassiz, in Storer, Hist. Fish. Mass., 1867, 265, pl. 18, fig. 1, Cusk Rocks between Boston and Cape Ann.

3819. *Anarhichas orientalis* Pallas.

Alaska.

Anarhichas orientalis Pallas, Zoogr. Rosso-Asiat., III, 1811, 77, Kamchatka.

Anarrhichas lepturus Bean, Proc. U. S. Nat. Mus., II, 1879, 212, St. Michaels, Alaska.

Genus 1353. LYCICHTHYS Gill.

Lycichthys Gill, Ann. Rec. Indust. & Sci., 1876, CLXVII (*Anarrhichas latifrons* Steenstrup and Hallgrimsson).

3820. *Lycichthys latifrons* (Steenstrup and Hallgrimsson).

North Atlantic, on both coasts; chiefly north of the Arctic Circle.

Anarrhichas latifrons Steenstrup and Hallgrimsson, Förh. Skand. Naturf., 3 die Môte, 1842, 647; name only, no description; Viden-skabelige Meddeleker Natur Forening Kjobenhavn, 1877-1878, 109-114.

3821. *Lycichthys minor* (Olafsen).

North Atlantic, on both coasts, chiefly north of the Arctic Circle.

Anarrhichas minor Olafsen, Reise i. Island, sec. 682b, 1774, tab. 42, Iceland.

Anarrhichas karrak Bonnaterre, Encycl. Ichth., 1788, 38, Iceland, after Olafsen.

Anarrhichas maculatus Bloch and Schneider, Syst. Ichth., 1801, 496, Iceland; after Olafsen.

Anarrhichas leopardus Agassiz, in Spix, Pisc. Brasil., 1829, 92, tab. 51, "Atlantic Ocean."

Family 284. ANARRHICHTHYIDÆ**Genus 1354. ANARRHICHTHYS Ayres.**

Anarrhichthys Ayres, Proc. Calif. Acad. Nat. Sci., I, 1855, 31 (*A. ocellatus* Ayres = *A. felis* Girard).

3822. *Anarrhichthys felis* (Girard). *Wolf eel*.

Pacific coast, from Monterey north to Puget Sound; common.

Anarrhichas felis Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 150, San Francisco; brief notice.

Anarrhichthys ocellatus Ayres, Proc. Calif. Acad. Nat. Sc., I, 1855, 31, San Francisco.

Family 285. CERDALIDÆ**Genus 1355. MICRODESMUS Günther.**

Microdesmus Günther, Proc. Zool. Soc. Lond., 1864, 26 (*M. dipus* Günther).

- 3823. *Microdesmus dipus* Günther.**
Pacific coast of tropical America.
Microdesmus dipus Günther, Proc. Zool. Soc. Lond., Jan. 26, 1864,
26, pl. 3, fig. 2, Central America.
- 3824. *Microdesmus retropinnis* Jordan and Gilbert.**
Panama.
Microdesmus retropinnis Jordan and Gilbert, Bull. U. S. Fish Com., I,
1881, 331, Panama.
- Genus 1356. CERDALE** Jordan and Gilbert.
Cerdale Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881, 332 (*C.
ionthas* Jordan and Gilbert).
- 3825. *Cerdale ionthas* Jordan and Gilbert.**
Panama.
Cerdale ionthas Jordan and Gilbert, Bull. U. S. Fish Com., I, 1881,
332, Panama.
- Genus 1357. LEPTOCERDALE** Weymouth.
Leptocerdale Weymouth, Proc. U. S. Nat. Mus., XXXVIII, 1910,
142 (*L. longipinnis* Weymouth).
- 3826. *Leptocerdale longipinnis* Weymouth.**
Coast of Louisiana.
Leptocerdale longipinnis Weymouth, Proc. U. S. Nat. Mus., XXXVIII,
1910, 142, Cameron, La.

Family 286. SCYTALINIDÆ

- Genus 1358. SCYTALINA** Jordan and Gilbert.
Scytalina Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880, 266
(*S. cerdale* Jordan and Gilbert).
Scitaliscus Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, III;
same type, there being already a genus *Scytalinus*.
- 3827. *Scytalina cerdale* Jordan and Gilbert.**
Straits of Juan de Fuca, Waadda Island, near Cape Flattery; also in
Aleutian Islands burrowing deep in gravel and sand.
Scytalina cerdale Jordan and Gilbert, Proc. U. S. Nat. Mus., III, 1880,
267, Waadda Island, Neah Bay.

Family 287. ZOARCIDÆ

- Genus 1359. MACROZOARCES** Gill.
Macrozoarces Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 258 (*Blennius
anguillaris* Peck).
- 3828. *Macrozoarces americanus* (Bloch and Schneider).** *Eelpout; Muttonfish;*
Mother-of-eels; Ling; Lamper eel; Conger eel.
Delaware to Labrador; rather common northward.
? *Enchelyopus* Gronow, Zoophyl., No. 266, 1763, 77, America.
? *Blennius americanus* Bloch and Schneider, Syst. Ichth., 1801, 171,
America; after Gronow.
Blennius anguillaris Peck, Mem. Amer. Acad. Sci., II, 1804, 46, fig. 3,
New Hampshire.
? *Blennius fimbriatus* Mitchill, Trans. Lit. and Phil. Soc. N. Y., 1815,
374, pl. 1, fig. 6, New York.
Blennius ciliatus Mitchill, loc. cit., 374, pl. 1, fig. 6, New York.
Zoarces labrosus Cuvier, Règne Anim., ed. 2, II, 1829, 240, America.
Zoarces gronovi Cuvier and Valenciennes, Hist. Nat. Poiss., XI, 1836,
246 (469); after Gronow.
- Genus 1360. EMBRYX** Jordan and Evermann.
Embryx Jordan and Evermann, Fishes North and Mid. Amer., 1898,
2458 (*Lycodopsis crotalinus* Gilbert).
- 3829. *Embryx crotalinus* (Gilbert).**
Northern Pacific and off Santa Barbara Islands.
Lycodopsis crotalinus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 105,
off Santa Barbara Islands at Albatross station 2980 in 603 fathoms.

3830. *Embryx crassilabris* (Gilbert).

Coast of southern California.

Lycodopsis crassilabris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 106, off southern California at Albatross station 2839.**3831. *Embryx parallelus* Gilbert.**

Monterey Bay.

Embryx parallelus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 360, Pl. X, IX, fig. 16, Monterey Bay, 394 to 406 fathoms.**Genus 1361. LYCODOPSIS Collett.***Lycodopsis* Collett, Proc. Zool. Soc. Lond., 1879, 381 (*Lycodes pacificus* Collett).*Leurynnis* Lockington, Proc. U. S. Nat. Mus., II, 1879, 326 (*L. paucidens* Lockington = *Lycodes pacificus* Collett).**3832. *Lycodopsis pacificus* (Collett).**

San Francisco to central Alaska; Afognak Bay.

Lycodes (Lycodopsis) pacificus Collett, Proc. Zool. Soc. Lond., 1879, 381; said to be from Japan; doubtless an error.*Leurynnis paucidens* Lockington, Proc. U. S. Nat. Mus., II, 1879, 326, off San Francisco, Calif.**3833. *Lycodopsis scaurus* Garman.**

Off Bay of Panama in deep water.

Lycodopsis scaurus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 132, Pl. XXXII, off Bay of Panama.**Genus 1362. APRODON Gilbert.***Aprodon* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 106 (*A. corteziana* Gilbert).**3834. *Aprodon cortezianus* Gilbert.**

Cortez Banks, near San Diego, Calif.

Aprodon corteziana Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 107, Cortez Banks, off San Diego, at Albatross stations 2925 and 2948 in 339 and 266 fathoms.**Genus 1363. LYCODES Reinhardt.***Lycodes* Reinhardt, Königl. Danske. Vidensk. Selsk. Naturv. Math. Afh., VII, 1838, 153 (*L. vahli* Reinhardt).**3835. *Lycodes vahlii* Reinhardt. *Vahl's lycodes*; *Misarkornak*.**

Coast of Greenland.

Lycodes vahlii Reinhardt, Königl. Danske. Vidensk. Selsk. Nat. Math. Afh., VII, 1838, 153, pl. 5, Greenland.**3836. *Lycodes frigidus* Collett.**

North Atlantic, off New England coast; Spitzbergen.

Lycodes frigidus Collett, Forh. Vid. Selsk. Christ., 1878, Nos. 14, 45, near Spitzbergen.**3837. *Lycodes terræ-novæ* Collett.**

Newfoundland Banks.

Lycodes terræ-novæ Collett, Campagnes Scientifiques *L'Hirondelle*, Poiss., 1896, 55, Newfoundland Banks in 25 fathoms.**3838. *Lycodes reticulatus* Reinhardt. *Akulliaksok*; *Spotted lycodes*.**

North Atlantic from Greenland south to Narragansett Bay; also northern Europe.

Lycodes reticulatus Reinhardt, Königl. Danske Vid. Selsk. Afh., VII, 1838, 167, Greenland.*Lycodes perspicillum* Krøyer, Dansk. Vidensk. Selsk. Afhandl., XI, 1845, p. cccxxiii, Newfoundland.**3839. *Lycodes esmarkii* Collett.**

North Atlantic; Gulf Stream, in about latitude 40°, to Finmark and Spitzbergen.

Lycodes esmarkii Collett, Norges Fiske, 1875, 95; American specimens from the Gulf Stream in about latitude 40°.**3840. *Lycodes jordani* Evermann and Goldsborough.**

Puget Sound and southeastern Alaska.

Lycodes jordani Evermann and Goldsborough, Bull. U. S. Bur. Fish., XXVI, 1906, 343, fig. 120, Puget Sound.

3841. *Lycodes gracilis* Sars.
Atlantic Ocean off Nova Scotia.
Lycodes gracilis Sars, Christ. Vid. Selsk. Forh., 1866, 40-45, Dröbak, Norway.
Lycodes zoarchus Goode and Bean, Oceanic Ichth., 1896, 308, off Nova Scotia.
3842. *Lycodes concolor* Gill and Townsend.
Bering Sea.
Lycodes concolor Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 233, Bering Sea in 276 fathoms.
3843. *Lycodes digitatus* Gill and Townsend.
Bering Sea.
Lycodes digitatus Gill and Townsend, Proc. Biol. Soc. Wash., XI, 1897, 232, Bering Sea in 49 fathoms.
3844. *Lycodes palearis* Gilbert.
Bristol Bay, Alaska.
Lycodes palearis Gilbert, Rept. U. S. Fish Com., XIX, 1893, 454, Bristol Bay, Alaska, at Albatross stations 3253 and 3254 in 36 and 46 fathoms.
3845. *Lycodes brevipes* Bean.
Aleutian Islands to Puget Sound.
Lycodes brevipes Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38, between Unga and Nagai islands in 110 fathoms.
3846. *Lycodes anguis* Garman.
Off Lower California and Panama in deep water.
Lycodes anguis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 133, off Bay of Panama.
3847. *Lycodes serpens* Garman.
Off Lower California in deep water.
Lycodes serpens Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 134, off Gulf of California.
3848. *Lycodes incisus* Garman.
Off Bay of Panama in deep water.
Lycodes incisus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 135, Pl. XXX, off Bay of Panama.
3849. *Lycodes cicatrifer* Garman.
Off Bay of Panama in deep water.
Lycodes cicatrifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 136, Pl. XXXI, off Bay of Panama.
- Genus 1364. *LYCIAS* Jordan and Evermann.
Lycias Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2461 (*Lycodes seminudus* Reinhardt).
3850. *Lycias nebulosus* (Krøyer). *Cloudy lycodes*.
Greenland.
Lycodes nebulosus Krøyer, Kongl. Danske Vidensk. Selsk. Afhand., XI, 1845, p. cccxxii, Greenland.
3851. *Lycias seminudus* (Reinhardt). *Half-naked lycodes*.
North Atlantic, from Greenland to Spitzbergen.
Lycodes seminudus Reinhardt, Kongl. Danske Selsk. Afhand., VII, 1838, 221, Omenak, Greenland.
- Genus 1365. *LYCENCHELYS* Gill.
Lycenchelys Gill, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 180 (*Lycodes murana* Collett).
3852. *Lycenchelys verrillii* (Goode and Bean).
Coast of Massachusetts and northward.
Lycodes verrillii Goode and Bean, Amer. Jour. Sci. Arts, XIV, 1877, 474; 27 miles south and west of Chebucto Head near Halifax.

3853. *Lycenchelys paxillus* (Goode and Bean).

Gulf Stream.

Lycodes paxillus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879, 44, between La Have and Sable Island Banks.*Lycodes paxilloides* Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 207, off Newfoundland.**3854. *Lycenchelys porifer* (Gilbert).**

Off Lower California.

Lycodes porifer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 104, off Lower California at Albatross station 3009 in 857 fathoms.**Genus 1366. *LYCDALEPIS* Bleeker.***Lycodalepis* Bleeker, Versl. Akad. Amst., ed. 2, VIII, 1874, 369 (*Lycodes mu.osus* Richardson).**3855. *Lycodalepis polaris* (Sabine). *Arctic lycodes*.**

Gulf of Georgia and Alaska.

Blennius polaris Sabine, Parry's Jour., Voyage 1819-20, App. CCXII, north Georgia.*Lycodes turneri* Bean, Proc. U. S. Nat. Mus., I, 1878, 463, St. Michaels, Alaska.*Lycodes coccineus* Bean, Proc. U. S. Nat. Mus., IV, 1881, 144, Big Diomedé Island, Bering Strait.**3856. *Lycodalepis mucosus* (Richardson).**

Arctic seas.

Lycodes mucosus Richardson, Last Arctic Voyage, 1855, 362, pl. 26, Northumberland Sound.**Genus 1367. *FURCIMANUS* Jordan and Evermann.***Furcella* Jordan and Evermann, Fishes North and Mid. Amer., 1896, 480 (*Lycodes diapterus* Gilbert); name preoccupied.*Furcimanus* Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2472 (*Lycodes diapterus* Gilbert).**3857. *Furcimanus diapterus* (Gilbert).**

Coasts of California and Oregon.

Lycodes diapterus Gilbert, Proc., U. S. Nat. Mus., XIV, 1891, 564, off coast of Oregon at Albatross stations 2892, 2896, and others in 82 to 376 fathoms.**Genus 1368. *LYCODONUS* Goode and Bean.***Lycodonus* Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 208 (*L. mirabilis* Goode and Bean).**3858. *Lycodonus mirabilis* Goode and Bean.**

Off the New England coast.

Lycodonus mirabilis Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1883, 208, lat. 38° 20' 8" N., long. 73° 23' 20" W., in 740 fathoms.**Genus 1369. *LYCONEMA* Gilbert.***Lycinema* Gilbert, Rept. U. S. Fish Com., XIX, 1893, 471 (*L. barbatum* Gilbert).**3859. *Lycinema barbatum* Gilbert.**

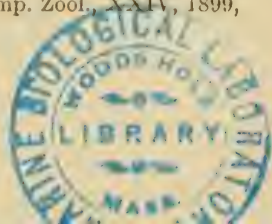
Coast of Alaska.

Lycinema barbatum Gilbert, Rept. U. S. Fish Com., XIX, 1893, 471, pl. 35, coast of Alaska, at Albatross station 3129 in 204 fathoms.**Genus 1370. *LYCOGRAMMA* Gilbert.***Lycogramma* Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 364, (*Maynea brunnea* Bean).**3860. *Lycogramma brunnea* (Bean).**

Coast of California to Alaska.

Maynea brunnea Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38, off Queen Charlotte Island in 876 fathoms.**Genus 1371. *MAYNEA* Cunningham.***Maynea* Cunningham, Trans. Linn. Soc. Lond., XXVII, 1871, 471 (*M. patagonica* Cunningham).

- 3861. *Maynea californica* Gilbert.**
 Santa Barbara Islands.
Maynea californica Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 362,
 pl. 19, fig. 17, San Nicolas Island off southern California.
- 3862. *Maynea bulbiceps* Garman.**
 Off Bay of Panama in deep water.
Maynea bulbiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 140,
 Pl. E, off Bay of Panama.
- Genus 1372. BOTHROCARA Bean.**
Bothrocara Bean, Proc. U. S. Nat. Mus., XIII, 1890, 38 (*B. mollis* Bean).
- 3863. *Bothrocara pusilla* (Bean).**
 Coast of Alaska north to Unalaska.
Maynea pusilla Bean, Proc. U. S. Nat. Mus., XIII, 1890, 39, Aleutian
 Islands, lat. 55° 10' N., long. 160° 18' W., in 110 fathoms.
- 3864. *Bothrocara mollis* Bean.**
 North Pacific to southern California.
Bothrocara mollis Bean, Proc. U. S. Nat. Mus., XIII, 1890, 39, off
 Queen Charlotte Islands in 876 fathoms.
- 3865. *Bothrocara remigera* Gilbert.**
 Monterey Bay.
Bothrocara remigera Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 366,
 pl. 20, fig. 19, Monterey Bay in 718 to 756 fathoms.
- Genus 1373. BOTHROCAROPSIS Garman.**
Bothrocaropsis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 127
 (*B. alalonga* Garman).
- 3866. *Bothrocaropsis alalonga* Garman.**
 Off Gulf of California in deep water.
Bothrocaropsis alalonga Garman, Mem. Mus. Comp. Zool., XXIV,
 1899, 127, XXXII, off Gulf of California.
- 3867. *Bothrocaropsis rictolata* Garman.**
 Off Bay of Panama in deep water.
Bothrocaropsis rictolata Garman, Mem. Mus. Comp. Zool., XXIV,
 1899, 128, Pl. XXIII, off Bay of Panama.
- 3868. *Bothrocaropsis elongata* Garman.**
 Off Bay of Panama in deep water.
Bothrocaropsis elongata Garman, Mem. Comp. Zool., XXIV, 1899, 129,
 Pl. XXXIII, off Bay of Panama.
- Genus 1374. GYMNELIS Reinhardt.**
Gymnelis Reinhardt, Dansk. Vidensk. Selsk. Afhandl., VII, 1838, 116,
 131 (*Ophidium viridis* Fabricius).
Cepolopolis Kaup, Archiv für Natur., 1856, 96 (*Ophidium viridis*
 Fabricius).
- 3869. *Gymnelis viridis* (Fabricius). *Unernak*.**
 Arctic seas south to Alaska and Nova Scotia.
Ophidium viridis Fabricius, Fauna Grœn., 1780, 141, Greenland.
Ophidium unernak Lacépède, Hist. Nat. Poiss., II, 1800, 280, Greenland.
 ?*Gymnelus pictus* Günther, Cat., IV, 1862, 324, no locality.
- 3870. *Gymnelis stigma* (Lay and Bennett).**
 Kotzebue Sound, Alaska.
Ophidium stigma Lay and Bennett, Zool. Beechey's Voy., 1839, 67,
 pl. 20, fig. 1, Kotzebue Sound.
Gymnelis viridis unimaculatus Richardson, Last Arctic Voyage, 1855,
 371, Northumberland Sound.
- 3871. *Gymnelis conorhynchus* Garman.**
 Off Bay of Panama in deep water.
Gymnelis conorhynchus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
 131, Pl. XXXI, off Bay of Panama.



Genus 1375. LYCOCARA Gill.

Uronectes Günther, Cat., IV, 1862, 325 (*Ophidium parrii* Ross); name preoccupied.

Lycocara Gill, Proc. Acad. Nat. Sci. Phila., XXXVI, 1884, 180 (*Ophidium parrii* Ross).

3872. *Lycocara parrii* (Ross).

Baffins Bay.

Ophidium parrii Ross, in Parry's Third Voyage, App., 1826, 109, Baffins Bay.

Genus 1376. MELANOSTIGMA Günther.

Melanostigma Günther, Proc. Zool. Soc. Lond., 1881, 20 (*M. gelatinosum* Günther).

3873. *Melanostigma gelatinosum* Günther.

Deep waters of the western Atlantic; originally known from the Straits of Magellan, but since obtained in various localities from Cape Cod to the West Indies.

Melanostigma gelatinosum Günther, Proc. Zool. Soc. Lond., 1881, 21, pl. 2, fig. A, Straits of Magellan.

3874. *Melanostigma pammelas* Gilbert.

Coast of Alaska.

Melanostigma pammelas Gilbert, Rept. U. S. Fish Com., XIX, 1893, 472, pl. 35, coast of Alaska at Albatross station 3202, lat. 36° 46' 10" N., long. 121° 58' 45" W., in 382 fathoms.

Genus 1377. PHYCOCÆTES Jenyns.

Phycocætes Jenyns, Zool. Beagle, 1842, 168 (*P. latitans* Jenyns).

3875. *Phycocætes suspectus* Garman.

Off Gulf of California in deep water.

Phycocætes suspectus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 137, Pl. XXX, off Gulf of California.

Family 288. LYCODAPODIDÆ**Genus 1378. LYCODAPUS Gilbert.**

Lycodapus Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 107 (*L. fierasfer* Gilbert).

3876. *Lycodapus fierasfer* Gilbert.

Pacific coast of America, Lower California to southeastern Alaska.

Lycodapus fierasfer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 108, off Lower California and Washington at Albatross stations 2980, 3010, and 3072 in 610 to 1005 fathoms.

3877. *Lycodapus dermatinus* Gilbert.

Coast of California in deep water.

Lycodapus dermatinus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 471, pl. 35, coast of California at Albatross station 3162, 37° 54' 10" N., 123° 30' W., in 552 fathoms.

3878. *Lycodapus parviceps* Gilbert.

Bering Sea, north of Unalaska Island.

Lycodapus parviceps Gilbert, Rept. U. S. Fish Com., XIX, 1893, 455, Bering Sea north of Unalaska Island at Albatross station 3324 in 109 fathoms.

3879. *Lycodapus extensus* Gilbert.

Bering Sea north of Unalaska Island.

Lycodapus extensus Gilbert, Rept. U. S. Fish Com., XIX, 1893, 455, Bering Sea north of Unalaska Island at Albatross station 3324 in 109 fathoms.

3880. *Lycodapus lycodon* Gilbert.

Monterey Bay.

Lycodapus lycodon Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 371, Monterey Bay, 152 to 268 fathoms.

3881. *Lycodapus grossidens* Gilbert.
Bering Sea.
Lycodapus grossidens Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
373, Funter Bay, southeast Alaska, in 350 fathoms.
3882. *Lycodapus attenuatus* Gilbert.
Monterey Bay.
Lycodapus attenuatus Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
372, pl. 21, Monterey Bay, in 285 to 357 fathoms.
3883. *Lycodapus mandibularis* Gilbert.
Monterey Bay.
Lycodapus mandibularis Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
369, pl. 20, fig. 20, Monterey Bay, in 144 to 293 fathoms.

Family 289. DEREPODICHTHYIDÆ

Genus 1379. DEREPODICHTHYS Gilbert.

Derepodichthys Gilbert, Rept. U. S. Fish Com., XIX, 1893, 456 (*D. alepidotus* Gilbert).

3884. *Derepodichthys alepidotus* Gilbert.
Coast of British Columbia, off Queen Charlotte Island.
Derepodichthys alepidotus Gilbert, Rept. U. S. Fish Com., XIX, 1893,
456, Queen Charlotte Island at Albatross station 3342 in 1,588 fathoms:

Family 290. BROTULIDÆ

Genus 1380. BROTULA Cuvier.

Brotula Cuvier, Règne Anim., ed. 2, II, 1829, 335 (*Enchelyopus barbatus* Bloch and Schneider).

3885. *Brotula barbata* (Bloch and Schneider). *Brotula*.
West Indies.
Enchelyopus barbatus Bloch and Schneider, Syst. Ichth., 1801, 52,
Habana; after Parra.
Brotula Parra, Dif. Piezas Hist. Nat., 1787, 70, lam. 31, fig. 2, Habana.

Genus 1381. STYGICOLA Gill.

Stygicola Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 252 (*Lucifuga dentatus* Poey).

3886. *Stygicola dentatus* (Poey).
Caves in southern Cuba.
Lucifuga dentatus Poey, Memorias, II, 1861, 102, cave of Cajío, Cuba.

Genus 1382. LUCIFUGA Poey.

Lucifuga Poey, Memorias, II, 1860, 95 (*L. subterraneus* Poey).

3887. *Lucifuga subterranea* Poey. *Pez ciego*.
Cuba, in caves.
Lucifuga subterraneus Poey, Memorias, II, 1861, 96, caves of San Antonio in southern Cuba.

Genus 1383. BROSMOPHYCIS Gill.

Brosomphycis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 168
(*Brosmius marginatus* Ayres).
Halas Ayres, Proc. Calif. Acad. Nat. Sci., II, 1861, 52 (*Brosmius marginatus* Ayres).

3888. *Brosomphycis marginatus* (Ayres).
San Francisco to Puget Sound; scarce, recently taken at San Pedro, Calif.
Brosmius marginatus Ayres, Proc. Calif. Acad. Nat. Sci., I, 1854, 13,
Bay of San Francisco.

Genus 1384. OGILBIA Jordan and Evermann.

Ogilbia Jordan and Evermann, in Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 132 (*O. cayorum* Evermann and Kendall).

3889. *Ogilbia cayorum* Evermann and Kendall.
Key West.
Ogilbia cayorum Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 132, pl. 9, fig. 14, Key West, Fla.
3890. *Ogilbia verrillii* (Garman).
Bermudas.
Brosmophycis verrillii Garman, Trans. Conn. Acad. Sci., X, 1900, 511, Bailey Bay, Bermuda Islands.
3891. *Ogilbia ventralis* (Gill).
Lower California, about Cape San Lucas.
Brosmophycis ventralis Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 253, Cape San Lucas.
- Genus 1385. **BYTHITES** Reinhardt.
Bythites Reinhardt, Königl. Dansk. Vidensk. Selsk. Skrift. Afhandl., VII, 1837, 178 (*B. fuscus* Reinhardt).
3892. *Bythites fuscus* Reinhardt.
The only specimen known, now in the Museum at Copenhagen, was obtained in Greenland nearly a century ago.
Bythites fuscus Reinhardt, Königl. Dansk. Vidensk. Selsk. Skrift. Afhandl., VII, 1838, 179, Greenland.
- Genus 1386. **CATÆTYX** Günther.
Catætyx Günther, Challenger Rept., XXII, 1887, 104 (*Sirembo messieri* Günther).
3893. *Catætyx rubrirostris* Gilbert.
Coast of California south of Point Conception, in deep water.
Catætyx rubrirostris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 111, coast of California, at Albatross stations 2909, 2925, and 2936 in 205 and 356 fathoms.
3894. *Catætyx simus* Garman.
Off Galapagos Islands to Bay of Panama, in deep water.
Catætyx simus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, Pl. E 1, 168, off Bay of Panama.
- Genus 1387. **DICROMITA** Goode and Bean.
Dicromita Goode and Bean, Oceanic Ichth., 1895, 319 (*D. agassizii* Goode and Bean).
3895. *Dicromita agassizii* Goode and Bean.
Granada and Gulf of Mexico.
Dicromita agassizii Goode and Bean, Oceanic Ichth., 1896, 319, fig. 285, Gulf of Mexico in 26 fathoms.
- Genus 1388. **MONOMITOPUS** Alcock.
Monomitopus Alcock, Ann. Mag. Nat. Hist., ser. 6, VI, 1890, 297 (*Sirembo nigripinnis* Alcock).
3896. *Monomitopus torvus* Garman.
Off Bay of Panama in deep water.
Monomitopus torvus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 157, Pl. XL, off Bay of Panama.
- Genus 1389. **MONOMEROPUS** Garman.
Monomeropus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 157 (*Monomeropus malispinosus* Garman).
3897. *Monomeropus malispinosus* Garman.
Off Bay of Panama in deep water.
Monomeropus malispinosus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 158, Pl. XL, off Bay of Panama.
- Genus 1390. **BASSOZETUS** Gill.
Bathynectes Günther, Ann. Nat. Hist., II, 1873, 20 (*B. compressus* Günther); name preoccupied.
Bassozetus Gill, Proc. U. S. Nat. Mus., VI, 1883, 259 (*B. normalis* Gill).
Bathyonus Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1886, 603 (*Bassozetus catena* Goode and Bean).

3898. *Bassozetus compressus* (Günther).
Gulf of Mexico and elsewhere in deep water.
Bathynectes compressus Günther, Ann. Mag. Nat. Hist., II, 1878, 20,
southeast of New Guinea in 1,400 fathoms.
3899. *Bassozetus normalis* Gill.
West Indies, off Dominica, to 40° north latitude, in region of Gulf
Stream.
Bassozetus normalis Gill, Proc. U. S. Nat. Mus., VI, 1883, 259, Gulf
Stream, at Albatross station 2042, 39° 33' N., 68° 26' 45" W., in
1,555 fathoms.
3900. *Bassozetus catena* (Goode and Bean).
Gulf of Mexico in deep water.
Bathyonus catena Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885,
603, at Albatross station 2379, 28° 00' 15" N., 87° 42' W., in 1,467
fathoms.
3901. *Bassozetus tænia* (Günther).
Mid-Atlantic.
Bathyonus tænia Günther, Challenger Rept., XXII, 1887, 110, pl. 23,
fig. A, Mid-Atlantic.
3902. *Bassozetus nasus* Garman.
Off Gulf of Panama and Pacific coast of southern Mexico in deep water.
Bassozetus nasus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 159,
Pl. LXXVII, off Pacific coast of southern Mexico.
- Genus 1391. *ERETMICHTHYS* Garman.
Eretmichthys Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 164
(*E. pinnatus* Garman).
3903. *Eretmichthys pinnatus* Garman.
Galapagos Islands to Bay of Panama in deep water.
Eretmichthys pinnatus Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
165, Pl. XXXV, off Bay of Panama.
3904. *Eretmichthys ocella* Garman.
Off Bay of Panama in deep water.
Eretmichthys ocella Garman, Mem. Mus. Comp. Zool., XXIV, 1899,
166, Pl. XXVII, off Bay of Panama.
- Genus 1392. *MÆBIA* Goode and Bean.
Mæbia Goode and Bean, Oceanic Ichth., 1895, 331 (*Bathynectes gracilis*
Günther).
3905. *Mæbia promelas* (Gilbert).
Gulf of California.
Porogadus promelas Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 546,
Gulf of California in 1,005 fathoms.
- Genus 1393. *NEOBYTHITES* Goode and Bean.
Neobythites Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 600
(*N. gillii* Goode and Bean).
3906. *Neobythites gillii* Goode and Bean.
Gulf of Mexico to Brazil, in deep water.
Neobythites gillii Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885,
601, Gulf of Mexico, at Albatross station 2402, 28° 36' N., 85° 33' W.,
in 111 fathoms.
Neobythites ocellatus Günther, Challenger Rept., XXII, 1887, 103, pl. 21,
fig. B, off Pernambuco in 350 fathoms.
3907. *Neobythites marginatus* Goode and Bean.
Off Barbados.
Neobythites marginatus Goode and Bean, Bull. Mus. Comp. Zool., XII,
1886, off Barbados in 209 fathoms.
- Genus 1394. *HOLCOMYCTERONUS* Garman.
Holcomycteronus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 162
(*H. digitatus* Garman).

3908. **Holcomycteronus digittatus** Garman.
Gulf of California to Colombia in deep water.
Holcomycteronus digittatus Garman, Mem. Mus. Comp. Zool., XXXVI, 1899, 163, Gulf of California.
- Genus 1395. **BENTHOCOMETES** Goode and Bean.
Benthocometes Goode and Bean, Oceanic Ichth., 1895, 327 (*Neobythites robustus* Goode and Bean).
3909. **Benthocometes robustus** (Goode and Bean).
West Indies to lat. 29° N. in Gulf Stream.
Neobythites robustus Goode and Bean, Bull. Mus. Comp. Zool., XII, 1883, 161, off Morro Castle, Cuba.
- Genus 1396. **BASSOGIGAS** Gill.
Bassogigas Gill, in Goode and Bean, Oceanic Ichth., 1895, 328 (*B. gillii* Goode and Bean).
3910. **Bassogigas gillii** Goode and Bean.
Off Cape Henlopen, Del.
Bassogigas gillii Goode and Bean, Oceanic Ichth., 1895, 328, fig. 291, off Cape Henlopen, Del., at Albatross station 2684 in 1,106 fathoms.
3911. **Bassogigas stelliferoides** (Gilbert).
Off Bay of Panama in deep water, and Gulf of California.
Neobythites stelliferoides Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 112, off Lower California at Albatross station 2996 in 112 fathoms.
- Genus 1397. **BARATHRODEMUS** Goode and Bean.
Barathrodemus Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 200 (*B. manatinus* Goode and Bean).
3912. **Barathrodemus manatinus** Goode and Bean.
Gulf Stream, north to Bermudas.
Barathrodemus manatinus Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 200, lat. 33° 51' 20" N., long. 76° W., in 647 fathoms.
- Genus 1398. **NEMATONUS** Günther.
Nematonus Günther, Challenger Rept., XXII, 1887, 114 (*Bathyonus pectoralis* Goode and Bean).
3913. **Nematonus pectoralis** (Goode and Bean).
Gulf of Mexico and off Dominica.
Bathyonus pectoralis Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 604, Albatross station 2380, lat. 28° 02' 30" N., long. 87° 43' 45" W., in 1,430 fathoms.
- Genus 1399. **POROGADUS** Goode and Bean.*
Porogadus Goode and Bean Proc. U. S. Nat. Mus., VIII, 1885, 602 (*P. miles* Goode and Bean).
3914. **Porogadus miles** Goode and Bean.
Atlantic coast, off Delaware Bay, in deep water.
Porogadus miles Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 602, at Albatross station 2230, lat. 38° 27' N., long. 73° 2' W., in 1,168 fathoms.
3915. **Porogadus longiceps** Garman.
Off Cocos Islands to Bay of Panama in deep water.
Porogadus longiceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 153, Pl. F, off Bay of Panama.
3916. **Porogadus atripectus** Garman.
Off Bay of Panama and Pacific coast of Mexico in deep water.
Porogadus atripectus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 154, Pl. XXXVII, off Bay of Panama.
3917. **Porogadus breviceps** Garman.
Gulf of California in deep water.
Porogadus breviceps Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 155, Gulf of California.
- Genus 1400. **PENOPUS** Goode and Bean.
Penopus Goode and Bean, Oceanic Ichth., 1895, 335 (*P. macdonaldi* Goode and Bean).

3918. *Penopus macdonaldi* Goode and Bean.

Gulf Stream.

Penopus macdonaldi Goode and Bean, Oceanic Ichth., 1895, 336, fig. 293, Gulf Stream at Albatross station 2716, lat. 38° 29' 30''., long. 70° 57' W., in 1,631 fathoms.**Genus 1401. DICROLENE Goode and Bean.***Dicrolene* Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 202 (*D. introniger* Goode and Bean).**3919. *Dicrolene intronigra* Goode and Bean.**

Gulf Stream, from lat. 15° to 40° N.

Dicrolene introniger Goode and Bean, Bull. Mus. Comp. Zool., X, No. 5, 1882, 202, Gulf Stream, lat. 34° N.**3920. *Dicrolene pullata* Garman.**

Off Gulf of Panama in deep water.

Dicrolene pullata Garman, Mem. Comp. Zool., XXIV, 1899, 152, off Gulf of Panama.**3921. *Dicrolene nigra* Garman.**

Off Galapagos Islands to Bay of Panama in deep water.

Dicrolene nigra Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 150, Pl. XXXVII, off Galapagos Islands.**3922. *Dicrolene filamentosa* Garman.**

Off Bay of Panama and Pacific coast of Mexico in deep water.

Dicrolene filamentosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 149, Pl. F, off Bay of Panama.**Genus 1402. MIXONUS Günther.***Mixonus* Günther, Challenger Rept., XXII, 1887, 108 (*Bathynectes laticeps* Günther).**3923. *Mixonus laticeps* (Günther).**

Mid-Atlantic in deep water.

Bathynectes laticeps Günther, Ann. Mag. Nat. Hist., II, 1878, 20, Mid-Atlantic at Challenger station 104 in 2,500 fathoms.*Sirembo guentheri* Vaillant, Expd. Sci. Travailleur et Talisman, 1888, 268, Pl. XXIV, fig. 5, off the Cape Verde Islands at a depth of 3,200 meters.**3924. *Mixonus caudalis* Garman.**

Between Galapagos and Cocos Islands in deep water.

Mixonus caudalis Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 148, Pl. XXXVI, off Cocos Islands.**Genus 1403. ACANTHONUS Günther.***Acanthonus* Günther, Ann. Mag. Nat. Hist., II, 1878, 22 (*A. armatus* Günther).**3925. *Acanthonus spinifer* Garman.**

Off Bay of Panama in deep water.

Acanthonus spinifer Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 170, Pl. F, off Bay of Panama.**Genus 1404. LEUCICORUS Garman.***Leucicorus* Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 146 (*L. lusciosus* Garman).**3926. *Leucicorus lusciosus* Garman.**

Off Pacific coast of Mexico in deep water.

Leucicorus lusciosus Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 146, Pl. XXXVIII, off Pacific coast of Mexico.**Genus 1405. SCIADONUS Garman.***Sciadonus* Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 171 (*S. pedicellaris* Garman).**3927. *Sciadonus pedicellaris* Garman.**

Off Cocos Island in deep water.

Sciadonus pedicellaris Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 172, Pl. F, off Cocos Island.

Genus 1406. LAMPROGRAMMUS Alcock.

Lamprogrammus Alcock, Ann. Mag. Nat. Hist., VIII, 1891, 32 (*L. niger* Alcock).

3928. Lamprogrammus illustris Garman.

Off Bay of Panama.

Lamprogrammus illustris Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 174, Pl. XXXIV, off Bay of Panama.

Genus 1407. BARATHRONUS Goode and Bean.

Barathronus Goode and Bean, Mem. Mus. Comp. Zool., XII, 1886, 164 (*B. bicolor* Goode and Bean).

3929. Barathronus bicolor Goode and Bean.

Off Guadalupe Island in deep water.

Barathronus bicolor Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, 164, off Guadalupe at Blake station 71 in 769 fathoms.

Genus 1408. APHYONUS Günther.

Aphyonus Günther, Ann. Mag. Nat. Hist., II, 1878, 22 (*A. gelatinosus* Günther).

3930. Aphyonus mollis Goode and Bean.

Gulf of Mexico in deep water.

Aphyonus mollis Goode and Bean, Bull. Mus. Comp. Zool., XII, 1886, 163, Gulf of Mexico at Blake station 221, lat. 24° 36' N., long. 84° 5' W., in 955 fathoms.

Genus 1409. ALLECTOR Heller and Snodgrass.

Allector Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 228 (*A. chelonix* Heller and Snodgrass).

3931. Allector chelonix Heller and Snodgrass.

Between Clipperton Island and Galapagos Archipelago.

Allector chelonix Heller and Snodgrass, Proc. Wash. Acad. Sci., V, 1903, 228, fig. 1, between Clipperton Island and the Galapagos.

Family 291. OPHIDIIDÆ**Genus 1410. LEPOPHIDIUM** Gill.

Lepophidium Gill, Am. Nat., XXIX, 1895, 16; substitute for

Leptophidium Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 210 (*L. profundorum* Gill); preoccupied in serpents by *Leptophidium* Hallowell, 1860.

3932. Lepophidium marmoratum (Goode and Bean).

Gulf Stream.

Lepophidium marmoratum Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 423, lat. 23° 10' 39" N., long. 82° 20' 21" W., in 213 fathoms.

3933. Lepophidium profundorum (Gill).

Gulf Stream, off coast of Florida.

Lepophidium profundorum Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 211, Gulf Stream, off coast of Florida.

3934. Lepophidium cervinum (Goode and Bean).

Gulf Stream.

Lepophidium cervinum Goode and Bean, Proc. U. S. Nat. Mus., VIII, 1885, 422, lat. 40° 01' N., long. 69° 56' W., depth 76 fathoms.

3935. Lepophidium brevibarbe (Cuvier).

West Indies and Brazil.

Ophidium brevibarbe Cuvier, Règne Anim., ed. 2, II, 1829, 359, Brazil.

3936. Lepophidium prorates (Jordan and Bollman).

Panama and south of Panama.

Leptophidium prorates Jordan and Bollman, Proc. U. S. Nat. Mus., XII, 1889, 172, Panama and south of Panama.

3937. Lepophidium emmelas (Gilbert).

Coast of Lower California.

Lepophidium emmelas Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 110, coast of Lower California at Albatross stations 3007 and 3008 in 362 and 306 fathoms.

3938. *Lepophidium pardale* (Gilbert).
Lower California.
Leptophidium pardale Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 108,
off Lower California.
3939. *Lepophidium microlepis* (Gilbert).
Off Lower California.
Leptophidium microlepis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
109, off Lower California.
3940. *Lepophidium stigmatistium* (Gilbert).
Coast of Lower California.
Leptophidium stigmatistium Gilbert, Proc. U. S. Nat. Mus., XIII, 1890,
109, off Lower California at Albatross station 2996 in 112 fathoms.
- Genus 1411. *OPHIDION* Linnæus. *Cusk eels*.
Ophidion Linnæus, Syst. Nat., Ed. X, 1758, 259 (*Ophidion barbatum*
Linnæus).
Ophidium of most authors; revised spelling.
3941. *Ophidion graëllsi* Poey.
Cuba.
Ophidion graëllsi Poey, Memorias, II, 1861, 425, Habana.
3942. *Ophidion beani* Jordan and Gilbert.
Gulf of Mexico; Snapper Banks off Pensacola, Fla.
Ophidion beani Jordan and Gilbert, Proc. U. S. Nat. Mus., VI, 1883, 143,
Snapper Banks off Pensacola.
3943. *Ophidion holbrooki* (Putnam).
Key West, Fla.; Gulf of Mexico.
Ophidium holbrooki Putnam, Proc. Bost. Soc. Nat. Hist., XVI, 1874,
342, Key West, Fla.
- Genus 1412. *RISSOLA* Jordan and Evermann.
Rissola Jordan and Evermann, Check List, 1895, 483 (*Ophidium mar-*
ginatum DeKay).
3944. *Rissola marginata* (DeKay). *Sand eel; Slippery dick*.
South Atlantic coast of United States from New York south to Pensa-
cola.
Ophidium marginatum DeKay, New York Fauna: Fishes, 1842, 315,
New York Harbor.
? *Ophidium josephi* Girard, U. S. and Mex. Bound. Surv., Zool., 1859,
29, Saint Joseph Island, Tex.
- Genus 1413. *OTOPHIDIUM* Gill.
Otophidium Gill, in Jordan, Cat. Fish. N. Amer., 1885, 914 (*Genypterus*
omostigma Jordan and Gilbert).
Chilaria Jordan and Evermann, Check List, 1895, 482 (*Ophidium taylora*
Girard).
3945. *Otophidium taylora* (Girard).
Coast of California, from Monterey to San Diego.
Ophidium taylora Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 138,
Monterey, Calif.
3946. *Otophidium omostigma* (Jordan and Gilbert).
Gulf of Mexico, Pensacola snapper banks.
Genypterus omostigma Jordan and Gilbert, Proc. U. S. Nat. Mus., V,
1882, 301, Pensacola snapper banks.
3947. *Otophidium scrippsi* Hubbs.
Long Beach to Cedros Island, Calif.
Otophidium scrippsi Hubbs, Univ. Calif. Publ. Zool., XVI, 1916, 166,
pl. 20, Cedros Island, off coast of Lower California.
3948. *Otophidium galeoides* (Gilbert).
Coast of Lower California.
Otophidium galeoides Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 110,
off Lower California.

3949. *Otophidium welshi* Nichols and Breder.

Coast of Texas.

Otophidium welshi Nichols and Breder, Proc. Biol. Soc. Wash., XXXV, 1922, 15, fig. 3, Texas, *Grampus* station 10478, southwest from Brayes Light.**Family 292. CARAPIDÆ****Genus 1414. CARAPUS Rafinesque.***Carapus* Rafinesque, Indice, 1810, 57, restricted by the International Commission of Nomenclature to *Ophidium imberbe*⁹⁰ Linnæus.*Fierasfer* Cuvier, Règne Anim., ed. 1, II, 1817, 239 (*Ophidium imberbe* Linnæus).*Echiodon* Thompson, Proc. Zool. Soc. Lond., 1837, 55 (*E. drummondi* Thompson).*Diaphasia* Lowe, loc. cit., 1843, 92 (*Gymnotus acus* Brünnich).*Oxybeles* Richardson, Voy. *Erebus* and *Terror*, Fishes, 1844-48, 73 (*O. homei* Richardson).*Porobronchus* Kaup, Ann. Mag. Nat. Hist., 1860, 272 (*P. linearis* Kaup; larva of *Fierasfer acus*).*Vezillifer* Gasco, Bull. Assoc. Nat. Med. Napoli, 1870, 59 (*V. dephilli* Gasco; larva of *Fierasfer acutus*).*Lefroyia* Jones, Zoologist, IX, 1874, 3838 (*L. bermudensis* Jones).**3950. *Carapus affinis* (Günther). Pearlfish.**

Lower California to Panama; abundant about the Pearl Islands off Panama, north to Point Loma, San Diego, Calif.

Fierasfer affinis Günther, Cat., IV, 1862, 381, no locality given.*Fierasfer dubius* Putnam, Proc. Bost. Soc. Nat. Hist., XVI, 1874, 344, Pearl Islands.**3951. *Carapus arenicola* (Jordan and Gilbert).**

Pacific coast of Mexico.

Fierasfer arenicola Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 363, Mazatlan, Mexico.**3952. *Carapus bermudensis* (Jones).**

West Indies; recorded from Bermuda, Habana, Key West, and St. Thomas.

Lefroyia bermudensis Jones, Zoologist, IX, 1874, 3837, Bermuda.**Genus 1415. LEPTOFIERASFER Meek and Hildebrand.***Leptofierasfer* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1928, 964 (*L. macrurus* Meek and Hildebrand).**3953. *Leptofierasfer macrurus* Meek and Hildebrand.***Leptofierasfer macrurus* Meek and Hildebrand, Field Mus. Nat. Hist., Zool., XV, 1928, 964, Pl. XCIX, fig. 1, Chame Point, Panama.**Suborder HAPLODOCI****Family 293. BATRACHOIDIDÆ****Genus 1416. BATRACHOIDES Lacépède.***Batrachoides* Lacépède, Hist. Nat. Poiss., II, 1800, 451 (*B. tau* Lacépède); not *Gadus tau* Linnæus = *Batrachus surinamensis* Schneider.*Batrachus* Schneider, ed. Bloch, Syst. Ichth., 1801, 42 (*B. surinamensis* Schneider); substitute for *Batrachoides*.*Batrictius* Rafinesque, Anal. Nat., 1815, 82; substitute for *Batrachoides*.**3954. *Batrachoides surinamensis* (Schneider). Sapo.**

Coast of Guiana and Brazil.

Batrachus surinamensis Schneider, ed. Bloch, Syst. Ichth., 1801, 43, Surinam; from a specimen in the museum of Paris.⁹⁰ With this decision we do not willingly concur, as the name *Carapus* is clearly cognate with *Gymnotus carapo*, a species of Gymnotidæ included but not named in the original account.

3955. *Batrachoides goldmani* Evermann and Goldsborough.
Rio Usumacinta at Montecristo, Tabasco, Mexico.
Batrachoides goldmani Evermann and Goldsborough, Bull. U. S. Fish
Com., XXI, 1901, 159, fig. 8, Rio Usumacinta, Mexico.
3956. *Batrachoides boulengeri* Gilbert and Starks.
Bay of Panama.
Batrachoides boulengeri Gilbert and Starks, Mem. Calif. Acad. Sci.,
IV, 1904, 182, Pl. XXXI, Bay of Panama.
3957. *Batrachoides pacifici* (Günther).
Panama.
Batrachus pacifici Günther, Cat., III, 1861, 173, Panama.
- Genus 1417. *OPSANUS* Rafinesque. *Toadfishes*.
Opsanus Rafinesque, Amer. Month. Mag., II, 1818, 203 (*O. cerapalus*
Rafinesque=*Gadus tau* Linnaeus).
Batrachus of authors, not of Schneider.
3958. *Opsanus tau* (Linnaeus). *Toadfish; Sapo; Slimer; Oysterfish; Scorpion*.
Atlantic coast, Massachusetts to the West Indies.
Gadus tau Linnaeus, Syst. Nat., ed. XII, 1766, 439, Charleston, S. C.
Cottus glaber Schöpfung, Schrift. Naturf. Freunde, VII, 1788, 146, Long
Island.
Cottus chatodon Bloch and Schneider, Syst. Ichth., 1801, 62, New York;
after Schöpfung.
Lophius bufo Mitchill, Trans. Lit. Phil. Soc., I, 1815, 463, New York.
Opsanus cerapalus Rafinesque, Amer. Month. Mag., II, 1818, 204,
south coast of Long Island.
Batrachoides vernullus LeSueur, Mém. Mus. Hist. Nat., V, 1819, 157,
pl. 17, coast of Rhode Island.
Batrachoides variegata LeSueur, Jour. Acad. Nat. Sci. Phila., III, pt. 2,
1824, 398, Egg Harbor, N. J.
Batrachus celatus DeKay, New York Fauna: Fishes, 1842, 170, pl. 50,
fig. 161, New York.
3959. *Opsanus hildebrandi* Breder.
Colon Market, Panama.
Opsanus hildebrandi Breder, Amer. Mus. Novit., No. 188, Sept. 28,
1925, I, Colon Market, Panama; place of collection unknown.
3960. *Opsanus pardus* (Goode and Bean). *Sapo*.
Gulf of Mexico in deep water.
Batrachus tau pardus Goode and Bean, Proc. U. S. Nat. Mus., II, 1879,
336, Pensacola snapper banks.
- Genus 1418. *PORICHTHYS* Girard. *Midshipmen*.
Porichthys Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 141 (*P.*
notatus Girard).
3961. *Porichthys notatus* Girard. *Singingfish; Midshipman; Cabezon; Sapo*.
Pacific coast from Puget Sound to Panama.
Porichthys notatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 141,
San Francisco.
3962. *Porichthys margaritatus* (Richardson).
Pacific coast of tropical America.
Batrachus margaritatus Richardson, Voy. Sulphur, Fishes, 1844-1843,
67, Pacific coast of Central America.
Porichthys nautopædium Jordan and Bollman, Proc. U. S. Nat. Mus.,
XII, 1889, 171, Pacific Ocean off coast of Colombia in 16 fathoms.
3963. *Porichthys greenei* Gilbert and Starks.
Panama Bay.
Porichthys greenei Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904,
184, Panama Bay.
- Genus 1419. *NAUTOPÆDIUM* Jordan.
Nautopædium Jordan, Proc. Acad. Nat. Sci. Phila., 1919, 342 (*Batrachus*
porosissimus Cuvier and Valenciennes).

3964. *Nautopædium porosissimum* (Cuvier and Valenciennes). *Bagre sapo*. South Carolina to Montevideo; Pensacola.
Batrachus porosissimus Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 373 (501), Surinam, Cayenne, Rio Janeiro, and St. Catherine.
Porichthys plectrodon Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 291, Galveston, Tex.

Genus 1420. **THALASSOPHRYNE** Günther. *Poison toadfishes*.

Thalassophryne Günther, Cat., III, 1861, 175 (*T. maculosa* Günther).
Dæctor Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2325 (*Thalassophryne dowi* Jordan and Gilbert).

Subgenus **THALASSOPHRYNE**.

3965. *Thalassophryne maculosa* Günther.
 Caribbean Sea.
Thalassophryne maculosa Günther, Cat., III, 1861, 175, Puerto Cabello near Aspinwall.
3966. *Thalassophryne reticulata* Günther.
 Panama.
Thalassophryne reticulata Günther, Proc. Zool. Soc. Lond., 1864, 150, 155, Panama.

Subgenus **DÆCTOR** Jordan and Evermann.

3967. *Thalassophryne dowi* (Jordan and Gilbert).
 Pacific coast of North America from Punta Arenas to Panama.
Thalassophryne dowi Jordan and Gilbert, Proc. U. S. Nat. Mus., X, 1887, 388, Punta Arenas.

Order YY. XENOPTERYGII

Family 294. GOBIESOCIDÆ

Genus 1421. **CAULARCHUS** Gill.

Caularchus Gill, Proc. Acad. Nat. Sci. Phila., XIV, 1862, 330 (*Lepadogaster mæandricus* Girard = *Lepadogaster reticulatus* Girard); name preoccupied.

3968. *Caularchus mæandricus* (Girard). *Suckfish*.
 Pacific coast of United States, from Vancouver Island to Monterey.
Lepadogaster reticulatus Girard, Proc. Acad. Nat. Sci. Phila., VII, 1854, 155, San Luis Obispo, Calif.; name preoccupied.
Lepadogaster mæandricus Girard, Pac. R. R. Surv., X, Pt. 4, Fishes, 1858, 130, San Luis Obispo, Calif., and the Farallons.

Genus 1422. **BRYSSETÆRES** Jordan and Evermann.

Bryssætæres Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI, 1896, 230 (*Gobiesox pinniger* Gilbert).

3969. *Bryssætæres pinniger* (Gilbert).
 Gulf of California; known from Puerto Refugio (Angel Island), San Luis Gonzales Bay, and La Paz.
Gobiesox pinniger Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 94, Puerto Refugio, Gulf of California.

Genus 1423. **CAULISTIUS** Jordan and Evermann.

Caulistius Jordan and Gilbert, Check List, 1895, 491 (*Gobiesox papillifer* Gilbert).

Bryssophilus Jordan and Evermann, Fishes North and Mid. Amer., 1898, 2329 (*Gobiesox papillifer* Gilbert); accidental duplication overlooked in proof reading.

3970. *Caulistius papillifer* (Gilbert).
 Magdalena Bay, Lower California.
Gobiesox papillifer Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 96, Magdalena Bay, Lower California.

Genus 1424. **GOBIESOX** Lacépède. *Clingfishes*.

Gobiesox Lacépède, Hist. Nat. Poiss., II, 1800, 595 (*G. cephalus* Lacépède).

Megaphalus Rafinesque, Anal. Nat., 1815, 86 (substitute for *Gobiesox* Lacépède).

Sicyogaster Brisout de Barneville, Rev. Zool., 1846, 144 (*Gobiesox marmoratus* Jenyns).

3971. **Gobiesox nigripinnis** (Peters).
Puerto Cabello, near Aspinwall, Colon.
Cotylis nigripinnis Peters, Monatsber. Akad. Wiss. Berlin, 1859, 412,
Puerto Cabello, near Aspinwall, Colon.
3972. **Gobiesox macrophthalmus** Günther.
Probably West Indies.
Gobiesox macrophthalmus Günther, Cat., III, 1861, 502, locality
unknown.
3973. **Gobiesox androsiensis** Rosen.
Bahamas.
Gobiesox androsiensis Rosen, Arsskr. Univ. Lund., VII, 1912, 50,
Bahamas.
3974. **Gobiesox costaricensis** Meek.
Costa Rica.
Gobiesox costaricensis Meek, Field Mus. Nat. Hist., Zool., X, 1912, 74,
Zent, Costa Rica.
3975. **Gobiesox gyrinus** Jordan and Evermann.
West Indies.
Gobiesox gyrinus Jordan and Evermann, Fishes North and Mid. Amer.,
1898, 2331, Cordova; name only in Check List, 1895, 491.
3976. **Gobiesox cephalus** Lacépède. *Tétard; Testar*.
West Indies.
Gobiesox cephalus Lacépède, Hist. Nat. Poiss., II, 1800, 595, Mar-
tinique.
Lepadogaster testar Bloch and Schneider, Syst. Ichth., 1801, 4, Mar-
tinique; after Plumier.
3977. **Gobiesox tudes** Richardson.
Probably West Indies.
Gobiesox tudes Richardson, Voy. Sulphur, Fishes, 1845, 103, pl. 46,
figs. 1-3; habitat unknown, erroneously supposed to be China.
3978. **Gobiesox strumosus** Cope.
Maryland to Florida.
Gobiesox strumosus Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870,
121, Hilton Head, S. C.
3979. **Gobiesox virgatulus** Jordan and Gilbert.
From Pensacola Bay north to Charleston, S. C.
Gobiesox virgatulus Jordan and Gilbert, Proc. U. S. Nat. Mus., V,
1882, 293, Pensacola, Fla.
3980. **Gobiesox adustus** Jordan and Gilbert.
Pacific coast of Mexico.
Gobiesox adustus Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881,
360, Mazatlan, Mexico.
3981. **Gobiesox funebris** Gilbert.
Gulf of California; Puerto Refugio (Angel Island) and La Paz.
Gobiesox funebris Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 95, Puerto
Refugio, Gulf of California.
3982. **Gobiesox rhodospilus** Günther.
Panama.
Gobiesox rhodospilus Günther, Proc. Zool. Soc. Lond., 1864, 25, Panama.
3983. **Gobiesox cerasinus** Cope.
St. Martins, West Indies.
Cyclopterus nudus Linnæus, Syst. Nat., ed. X, 1758, 260, "India";
not identifiable.
Gobiesox cerasinus Cope, Trans. Amer. Phil. Soc., XIV, 1871, 473, St.
Martins, West Indies.
3984. **Gobiesox vittatus** Metzelaar.
Caribbean Sea.
Gobiesox vittatus Metzelaar, Marine Fish. Lesser Antilles, Bijdr.
Dierk., 1922, 140, with fig., Curaçao.

3985. *Gobiesox sancti-martini* Metzelaar.
West Indies.
Gobiesox sancti-martini Metzelaar, Trop. Atl. Vissch., 1919, 154, fig. 48,
St. Martin's Island.
3986. *Gobiesox yuma* Nichols.
Coast of Florida.
Gobiesox yuma Nichols, Bull. Amer. Mus. Nat. Hist., XXXVII, Dec.
29, 1917, 876, fig. 1, south of Sanibel Light, Florida west coast.
- Genus 1425. *SICYASES* Müller and Troschel.
Sicyases Müller and Troschel, Wiegmann's Archiv, 1843, 298, *S.*
sanguineus.
Tomicodon Brisout de Barneville, Rev. Zool., 1846, 144 (*T. chilensis*
Barneville).
3987. *Sicyases erythrops* (Jordan and Gilbert).
Mazatlan; also Tres Marias Islands.
Gobiesox erythrops Jordan and Gilbert, Proc. U. S. Nat. Mus., IV,
1881, 360, Mazatlan, Mexico.
3988. *Sicyases rubiginosus* Poey.
Matanzas, Cuba.
Sicyases rubiginosus Poey, Synop., 1868, 391, wharves of Palmasola,
Matanzas, Cuba.
3989. *Sicyases carneus* Poey.
Matanzas, Cuba.
Sicyases carneus Poey, Synop., 1868, 392, wharves of Palmasola,
Matanzas, Cuba.
3990. *Sicyases hæres* (Jordan and Bollman).
Green Turtle Cay, Bahamas.
Gobiesox hæres Jordan and Bollman, Proc. U. S. Nat. Mus., XI, 1888,
552, Green Turtle Cay, Bahamas.
3991. *Sicyases punctulatus* Poey.
Cuba.
Sicyases punctulatus Poey, Enumeratio, 1876, 124, Habana.
3992. *Sicyases fasciatus* Peters.
Puerto Cabello near Aspinwall.
Sicyases fasciatus Peters, Monatsber. Akad. Wiss. Berlin, 1859, 412,
Puerto Cabello.
- Genus 1426. *RIMICOLA* Jordan and Evermann.
Rimicola Jordan and Evermann, Proc. Calif. Acad. Sci., 2d ser., VI,
1896, 231 (*Gobiesox muscarum* Meek and Pierson).
3993. *Rimicola eigenmanni* (Gilbert).
Point Loma, near San Diego, to Monterey Bay, Calif.
Gobiesox eigenmanni Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 96,
Point Loma near San Diego, Calif.
Gobiesox muscarum Meek and Pierson, Proc. Calif. Acad. Sci., 2d ser.,
V, 1895, 571, pl. 71, Monterey Bay, Calif.
3994. *Rimicola beryllinus* (Hildebrand and Ginsberg).
Key West, Fla.
Gobiesox (Rimicola) beryllinus Hildebrand and Ginsberg, Bull. U. S.
Bur. Fish., XLII, 1926, 213, fig. 5, Boca China, Key West, Fla.
- Genus 1427. *ARBACIOSA* Jordan and Evermann.
Arbaciosa Jordan and Everman, Proc. Calif. Acad. Sci., 2d ser., VI,
1896, 230 (*Gobiesox humeralis* Gilbert).
3995. *Abraciosa rhessodon* (Rosa Smith).
San Diego to the northern part of the Gulf of California.
Gobiesox rhessodon Rosa Smith (Mrs. Eigenmann), Proc. U. S. Nat.
Mus., IV, 1881, 140, San Diego, Calif.
3996. *Abraciosa humeralis* (Gilbert).
Gulf of California; Puerto Refugio, Angel Island; La Paz.
Gobiesox humeralis Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 95,
Puerto Refugio, Gulf of California.

3997. *Arbacia rupestris* (Poey).
Coral reefs of Cuba.
Gobiesox rupestris Poey, *Memorias*, II, 1861, 283, Cuba.
3998. *Arbacia zebra* (Jordan and Gilbert).
Mazatlan, Mexico.
Gobiesox zebra Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, IV, 1881, 359, Mazatlan, Mexico.
3999. *Arbacia eos* (Jordan and Gilbert).
Pacific coast of Mexico.
Gobiesox eos Jordan and Gilbert, *Proc. U. S. Nat. Mus.*, IV, 1881, 360, Mazatlan, Mexico.

Order ZZ. PLECTOGNATHI

Suborder SCLERODERMI

Family 295. TRIACANTHIDÆ

- Genus 1428. *HOLLARDIA* Poey.
Hollardia Poey, *Memorias*, II, 1861, 348 (*H. hollardi* Poey).

4000. *Hollardia hollardi* Poey.
West Indies.
Hollardia hollardi Poey, *Memorias*, II, 1861, 348, pl. 18, fig. 11, Cuba

Family 296. BALISTIDÆ

- Genus 1429. *BALISTES* Linnæus.
Balistes Linnæus, *Syst. Nat.*, ed. X, 1758, 327 (*B. vetula* Linnæus).
Capriscus Rafinesque, *Indice*, 1810, 41, 58 (*C. porcus* Rafinesque = *Balistes capriscus* Gmelin).

4001. *Balistes naufragium* Jordan and Starks. *Pez puerco de piedra*.
Mazatlan; Panama Bay.
Balistes naufragium Jordan and Starks, *Proc. Calif. Acad. Sci.*, 2d ser., V, 1895, 488, Mazatlan.
4002. *Balistes capriscus* Gmelin. *Leatherjacket; Cucuyo; Turbot; Triggerfish; Filefish*.
Tropical parts of the Atlantic; Gulf Stream; Mediterranean.
Balistes carolinensis Gmelin, *Syst. Nat.*, I, 1788, 1468, Carolinas.
Balistes capriscus Gmelin, loc. cit., 1789, 1471, Indian and American oceans; after Gronow (this name preferred by first reviewer).
Balistes buniva Lacépède, *Hist. Nat. Poiss.*, V, 1798, 669, pl. 21, fig. 1, Nice.
Balistes caprinus Valenciennes, *Ichth. Îles Canaries*, 1836, 94, pl. 16, Canaries.
Balistes fuliginosus DeKay, *N. Y. Fauna: Fishes*, 1842, 339, pl. 57, fig. 188, New York.
Balistes taniopterus Poey, *Memorias*, II, 1861, 326, Cuba.
4003. *Balistes vetula* Linnæus. *Oldwife; Old wench; Cochino; Blue-striped triggerfish; Bessy cerka*.
Tropical parts of the Atlantic; West Indies; Gulf Stream to Woods Hole.
Guaperva Marcgrave, *Hist. Bras.*, 1648, 163, Brazil.
Balistes vetula Linnæus, *Syst. Nat.*, Ed. X, 1758, 329, Ascension Island; after *Balistes vetula* of Osbeck, *Iter Chinensis*, 294, 1757.
Balistes bellus Walbaum, *Artedi Pisc.*, III, 1792, 467, West Indies; after Krøyer.
Balistes equestris Gronow, *Cat. Fishes*, ed. Gray, 1854, 31, American seas.

4004. *Balistes forcipatus* Gmelin.

West coast of Africa to Rhode Island and Brazil.

Balistes forcipatus Gmelin, Syst. Nat., I, 1789, 1472, Brazil; after *Guaperva lata* of List.

Balistes punctatus Gmelin, loc. cit., 1472; after Stipvisch of Willoughby.

Balistes spilopterygius Walbaum, Artedi Pisc., III, 1792, 455, Brazil.

Balistes guttatus Walbaum, loc. cit., 467, St. Vincent.

Balistes ciliaris Bloch and Schneider, Syst. Ichth., 1801, 471, Brazil.

Balistes liberiensis Steindachner. Ichth. Notizen, IV, 1867, 9, Monrovia in Liberia.

?*Balistes powelli* Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 120, Newport, R. I.

Balistes moribundus Cope, Trans. Amer. Phil. Soc., XIV, 1870, 478, St. Martins.

Genus 1430. *SUFFLAMEN* Jordan.

Pachynathus Swainson, Classn. Fishes, II, 1839, 326 (*Balistes triangularis*=*Balistes capistratus* Shaw); not *Pachygnatha* nor *Pachygnathus*; both these names earlier used for genera of spiders, the name *Pachygnathus* regarded as a misprint and not valid according to decision of the International Commission of Nomenclature.

Sufflamen Jordan, Copeia, April 12, 1916, 27 (*Balistes capistratus* Shaw).

4005. *Sufflamen verres* (Gilbert and Starks). *Pez puerco*.

Pacific coast of tropical America, from Magdalena Bay to the Galapagos.

Balistes capistratus of authors; not of Shaw, Gen. Zool., V, 1804, 417; after *Balistes bridé* Lacépède, a species of the South Seas and East Indies.

Balistes verres Gilbert and Starks, Mem. Calif. Acad. Sci., V, 1904, 153, Pl. XXVI, fig. 49, Panama and Mazatlan.

Genus 1431. *VERRUNCULUS* Jordan.

Verrunculus Jordan, Copeia, Sept., 1924, 82 (*Balistes polylepis* Steindachner).

4006. *Verrunculus polylepis* (Steindachner). *Pez puerco*.

San Diego to Panama; common southward.

Balistes polylepis Steindachner, Ichth. Beitr., V, 1876, 21, Magdalena Bay; Mazatlan; Acapulco.

Genus 1432. *CANTHIDERMIS* Swainson. *Sobacos*.

Canthidermis Swainson, Nat. Hist. Classn. Anim., II, 1839, 325, (*Balistes angulosus* Quoy and Gaimard).

4007. *Canthidermis angulosus* (Quoy and Gaimard).

Hawaii to Cocos Island; rare.

Balistes angulosus Quoy and Gaimard, Voy. Uranie, Zool., 1824, 210, Sandwich Islands (Hawaiian Islands).

4008. *Canthidermis sobaco* (Poey). *Sobaco*.

West Indies.

Balistes sobaco Poey, Memorias, II, 1861, 324, Habana.

Balistes asperimus Cope, Trans. Amer. Phil. Soc., XIV, 1870, 478, St. Martins.

4009. *Canthidermis sufflamen* (Mitchill). *Sobaco*.

West Indies; Habana.

Sobaco Parra, Dif. Piezas, Hist. Cuba, 1787, 17, fig. 10, Habana.

Balistes sufflamen Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 467, locality unknown, said by DeKay to be from the south Atlantic.

Balistes macrops Poey, Memorias, II, 1861, 326, Habana.

4010. *Canthidermis maculatus* (Bloch). *Ocean turbot*.

West Indies.

Balistes maculatus Bloch, Nat. Ausl. Fisch., II, 1786, 25, West Indies.*Balistes americanus* Gmelin, Syst. Nat., I, 1789, 1473, America; after Gronow.*Balistes macropterus* Walbaum, Artedi Pisc., III, 1792, 465, America.*Balistes rufus* Gronow, Cat. Fishes, ed. Gray, 1854, 36, American oceans.*Balistes longus* Gronow, loc. cit., 1854, American oceans.*Balistes melanopterus* Cope, Trans. Amer. Phil. Soc., XIV, 1870, 478, Darien.**4011. *Canthidermis willughbeii* (Lay and Bennett).**

Pacific coast of Mexico.

Balistes willughbeii Lay and Bennett, Zoology Beechey's Voyage, 1839, 68, pl. 21, fig. 2, Acapulco, Mexico.**Genus 1433. *XANTHICHTHYS* Kaup.***Xanthichthys* Kaup, in Richardson, Enc. Brit., ed. XII, 1856, 313 (*Balistes curassavicus* Gmelin).**4012. *Xanthichthys ringens* (Linnæus). *Cocuyo*.**

West Indies and southward, recorded from Mauritius.

Balistes ringens Linnæus, Syst. Nat., Ed. X, 1758, 329, no locality.*Cucuyo* Parra, Dif. Piezas, etc., Cuba, 1787, 19, Habana; after Linnæus.*Balistes curassavicus* Gmelin, Syst. Nat., I, 1788, 1472, Curaçao.*Balistes notatus* Gronow, Cat. Fishes, ed. Gray, 1854, 36, both Indies.*Balistes nitidus* Gronow, loc. cit., 36, American oceans.*Balistes cicatricosus* Poey, Memorias, II, 1861, 327, Cuba.*Balistes heckeli* von Müller, Reisen in Vereinigten Staaten, Canada und Mexico, I, 1864, 182, Mexico.**4013. *Xanthichthys lineopunctatus* (Hollard).**

Panama; Pacific coast of Mexico to East Indies; taken at San Diego.

Balistes lineopunctatus Hollard, Ann. Sci. Nat., ser. 4, I, 1854, 65, Bourbon Island.*Balistes mento* Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 228 Clarion Island of the Revillagigedo group.**Genus 1434. *MELICHTHYS* Swainson.***Melichthys* Swainson, Class. Anim., II, 1839, 325 (*Balistes ringens* Bloch = *Balistes buniva* Lacépède).**4014. *Melichthys piceus* (Poey). *Galafate*; *Black oldwife*; *Calafate*.**

West Indies and southward.

? *Balistes nigra* Osbeck, Iter Chinensis, 1757, 295, Ascension Island; pre-Linnæan.*Galafate* Parra, Dif. Piezas, etc., 1787, 18, Habana.*Balistes piceus* Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 180, Cuba.**4015. *Melichthys radula* (Solander).**

East Indies, Clarion and Socorro Islands; Cocos Island.

Balistes radula Solander, in Richardson, Voy. H. M. S. *Samarang*, Fishes, 1848, 21.*Melichthys bispinosus* Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 125, Clarion and Socorro Islands of the Revillagigedo group.**Family 297. *MONACANTHIDÆ*. Filefishes****Genus 1435. *CANTHERINES* Swainson.***Cantherines* Swainson, Classn. Fishes, II, 1839, 327 (*Cantherines nasutus* Swainson = *Balistes sandwichensis* Quoy and Gaimard).*Pseudomonacanthus* Bleeker, loc. cit., 12 (*Monacanthus macrurus* Bleeker).*Liomonacanthus* Bleeker, Ned. Tijdskr., III, 1866, 13 (*Monacanthus pardalis* Rüppell).

4016. *Cantherines pullus* (Ranzani). *Lija colorado*.
 West Indies and coast of Brazil; southern Florida.
Lija colorado Parra, Dif. Piezas, etc., 1787, pl. 23, p. 49, Cuba.
Monacanthus pullus Ranzani, Nov. Comm. Act. Sci. Inst. Bonon., V, 1842, 4, pl. 1, Brazil.
Monacanthus macrocerus Holland, Ann. Sci. Nat., II, 1854, 327, pl. 12, fig. 1, Bahia.
Monacanthus ruppelii Castelnau, Anim. Nouv. Amer. Sud., Poiss., 1855, 97, pl. 47, fig. 2, Bahia.
Monacanthus irroratus Poey, Memorias, II, 1861, 330, Cuba.
Monacanthus striatus Poey, loc. cit., 329, Cuba.
Monacanthus parraianus Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 185, Cuba; after Parra.
Monacanthus punctatus Poey, Synopsis, 1868, 437, Cuba.
4017. *Cantherines carolæ* (Jordan and McGregor).
 Islands off the Pacific coast of Mexico; Revillagigedo Islands.
Balistes sandwichensis Quoy and Gaimard, Voy. l'Uranie, Zool., 1824, 214, Sandwich [Hawaiian] Islands.
Cantherines nasutus Swainson, Nat. Hist. Class. Fishes, II, 1839, 327; substitute for *B. sandwichensis*.
Cantherines carolæ Jordan and McGregor, in Jordan and Evermann, Fishes North and Mid. Amer., 1898, 1713 (Clarion Island by error), Socorro Island.
4018. *Cantherines amphioxys* (Cope).
 St. Martins Island, West Indies.
Monacanthus amphioxys Cope, Trans. Amer. Phil. Soc., XIV, 1870, 477, St. Martins Island.
- Subgenus **MONACANTHUS**.
- Genus 1436. **MONACANTHUS** Cuvier.
Monacanthus Cuvier, Règne Anim., Ed. I, 1817, 152 (*Balistes chinensis* Bloch).
Trichoderma Swainson, Nat. Hist. Fish., Amphib., etc., II, 1839, 328 (*Balistes scapus* Lacépède).
Stephanolepis Gill, Proc. Acad. Nat. Sci. Phila., XIII, 1861, 78 (*Monacanthus setifer* Bennett).
4019. *Monacanthus ciliatus* (Mitchill). *Leatherfish*; *Lija*; *Flapmingo*.
 West Indies and Florida; Florida Keys.
Balistes ciliatus Mitchill, Amer. Month. Mag. and Crit. Rev., II, March, 1818, 326, Bahama Straits.
Monacanthus piraaca Kner, Reise Fregatte Novara um Erde, Zool., Fische, 1867, 396, Rio Janeiro.
Monacanthus occidentalis Günther, Cat., VIII, 1870, 237, Puerto Caballo.
Monacanthus davidsonii Cope, Trans. Amer. Phil. Soc. Phila., XIV, 1870 (1871), 476, Florida Reef.
- Subgenus **STEPHANOLEPIS** Gill.
4020. *Monacanthus hispidus* (Linnaeus). *Foolfish*; *Filefish*; *Leatherfish*; *Horny cony*; *Lija*; *Thread filefish*; *Mingo*.
 Cape Cod to Cuba; south Atlantic coast and Florida Keys; West Indies to Brazil.
Balistes hispidus Linnaeus, Syst. Nat., Ed. XII, 1766, 405, Carolinas.
Balistes broccus Mitchill, Trans. Lit. Phil. Soc., I, 1815, 467, New York.
Monacanthus filamentosus Valenciennes, Îles Canaries Ichth. Atl., 1836, 95, pl. 16, fig. 1, Canaries.
Monacanthus gallinula Valenciennes, loc. cit., 95, Canaries.
Monacanthus varius Ranzani, Novi Comment. Ac. Sci. Inst. Bonon., V, 1842, 6, Pl. II, Brazil.
Monacanthus massachusettensis DeKay, N. Y. Fauna: Fishes, 1842, 336, pl. 57, fig. 187, Massachusetts Bay.
Monacanthus setifer DeKay, loc. cit., 337, pl. 59, fig. 194, New York.
Monacanthus signifer Storer, Synop. Fish. N. Amer., 1846, 497, Massachusetts.
Monacanthus auriga Lowe, Proc. Zool. Soc. Lond., 1850, 253, Madeira.

4021. *Monacanthus oppositus* Poey.

Cuba.

Monacanthus oppositus Poey, Memorias, II, 1861, 331, Habana.**4022. *Monacanthus spilonotus* Cope.**

Gulf of Mexico.

Monacanthus spilonotus Cope, Trans. Amer. Phil. Soc. Phila., XIV, 1870, 476, Gulf of Mexico.**4023. *Monacanthus tuckeri* Bean.**

West Indies, north to Bermudas.

Monacanthus tuckeri Bean, Field Mus. Nat. Hist., Zool., VII, 1906, 78, fig. 11, Bermudas.**Genus 1437. *CERATACANTHUS* Gill.***Ceratocanthus* Gill, Fish. E. Coast N. Amer., Proc. Acad. Nat. Sci. Phila., XIII, 1861, 57 (*Balistes aurantiacus* Mitchill = *Balistes schæpfi* Walbaum).**4024. *Ceratocanthus schæpfi* (Walbaum). *Filefish*; *Orange filefish*; *Lija*; *Foolfish*; *Unicornfish*; *Sunfish*.**

Cape Cod to the Carolinas and Florida.

Balistes schæpfi Walbaum, Artedi Pisc., 1792, 461, Long Island; after Schöpf, Berlin Ges. Naturf., VIII, 1788, 186.*Balistes aurantiacus* Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 468, New York.*Aluterus cuspidata* DeKay, New York Fauna: Fishes, 1842, 338, New York.*Aluterus holbrooki* Hollard, Ann. Sci. Nat., IV, 1855, 7, North America.*Aluterus cultrifrons* Hollard, Ann. Sci. Nat., ser. 4, IV, 1855, 8, pl. 1, fig. 2, New York and Bahia.**Genus 1438. *DAVIDIA* Miranda Ribeiro.***Davidia* Miranda Ribeiro, Archiv Mus. Nac. Rio Janeiro, XVII, 1915, 9 (*Alutera punctata* Agassiz).**4025. *Davidia punctata* (Agassiz). *Long mingo*.**

Jamaica to Bahia.

Alutera punctata Agassiz, Pisc. Brasil., 1829, 134, pl. 76, Brazil.**Genus 1439. *OSBECKIA* Jordan and Evermann.***Osbeckia* Jordan and Evermann, Check List, 1895, 424 (*Balistes scripta* Osbeck).**4026. *Osbeckia scripta*⁹¹ (Osbeck). *Unicornfish*; *Lija trompa*; *Olilepa*; *Ohua*. Tropical seas; West Indies; North Carolina; off west coast of Mexico; Clarion Island, Revillagigedo Islands.***Balistes scriptus* Osbeck, Iter Chinensis, I, 1757, 144, Canaries.*Unicornis piscis bahamensis* Catesby, Nat. Hist. Carolina, etc., II, 1743, 19, pl. 19, Bahamas.*Balistes laevis* Bloch, Naturgesch. Ausl. Fische, IV, 1795, 82, pl. 414, Morocco.*Monacanthum proboscideum* Ranzani, Nov. Comm. Ac. Sc. Inst. Bonon., V, 1842, 8, Brazil.*Aluterus venosus* Hollard, Ann. Sc. Nat., ser. 4, IV, 1855, 14, pl. 1, fig. 3, New Ireland.*Alutera picturata* Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 183, Cuba.**Genus 1440. *ALUTERA* Cuvier.***Les Alutères* Cuvier, Règne Anim., ed. 1, 1817, 153 (*Balistes monoceros* Osbeck).*Alutera* Oken, Isis, 1817, 153 ("Les Alutères" Cuvier; *Balistes monoceros* Linnæus).

⁹¹ Whether *Osbeckia venosa* Hollard, East Indies to Hawaii and the Revillagigedos, is distinct from *O. scripta* of the Atlantic is a matter not yet determined. The distinction of *Osbeckia* and *Ceratocanthus* from *Alutera* is questionable.

4027. *Alutera monoceros*⁹² Linnæus. *Liza barbuda*; *Loulu*.
 Pacific Ocean; East Indies; Japan; Hawaii.
Capriscus minima etc., Klein, Miasus, II, 1742, 25 (no locality; figure very bad).
Balistes monoceros Osbeck, Iter Chinensis, 1757, 110, Asia; Linnæus, Syst. Nat., ed. X, 1758, 327, Asia and America.
Liza barbuda Parra, Dif. Piezas Hist. Nat., 1787, 48, pl. 22, fig. 2, Habana.
Balistes kleinii Gmelin, Syst. Nat., 1788, 1472, Indian seas; after Klein.
Balistes barbatus Walbaum, Artedi Pisc., III, 1792, 464; after Klein.
Balistes monoceros unicolor Bloch and Schneider, Syst. Ichth., 1801, 463, after Gmelin.
Aluteres berardi Lesson, Voy. Coquille, Zool., 1830, 108, pl. 7, New Guinea.
Alutera cinerea Temminck and Schlegel, Fauna Japon., Poiss., 1850, 292, pl. 131, fig. 1, Japan.
Alutarius macracanthus Bleeker, Verh. Bat. Gen., Balistini, XXIV, Art. 11, 1852, 22, pl. 3, fig. 7, East Indies.
Alutarius amphacanthoides Bleeker, loc. cit., 23, pl. 2, fig. 5, East Indies.
Alutarius obliteratus Cantor, Malayan Fishes, 1850, 352, Pinang.
Balistes linguatula Gronow, Cat., ed. Gray, 1854, 35, Indian seas.
Aluteres anginosus Hollard, Ann. Sci. Nat., IV, 1855, 11, East Indies.
Balistes unicornu Basilewsky, Nouv. Mém. Soc. Nat. Moscow, X, 1855, 263, China.
4028. *Alutera guntheriana* Poey. *Liza barbuda*.
 West Indies; once taken at Woods Hole (1898).
Alutera guntheriana Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 184, Habana.

Suborder OSTRACODERMI

Family 298. OSTRACIIDÆ. Trunkfishes

Genus 1441. OSTRACION Linnæus.

- Ostracion* Linnæus, Syst. Nat., Ed. X, 1758, 330 (*O. cubicus* Linnæus).
Cibotion Kaup, Wiegmann's Archiv, XXI, 1855, 215 (*Ostracion cubicus* Linnæus).
Ostracium of authors; improved orthography.

4029. *Ostracion punctatum* Bloch and Schneider.

- Tropical Pacific in general; Clipperton Island, Galapagos Islands, Hawaiian Islands.
Ostracion lentiginosum Bloch and Schneider, Syst. Ichth., 1801, 501, Île de France.
Ostracion punctatus Bloch and Schneider, loc. cit., 501, Honolulu.

4030. *Ostracion clippertonense* Snodgrass and Heller.

- Clipperton Island.
Ostracion clippertonense Snodgrass and Heller, Shore Fishes, Galapagos Islands, in Proc. Wash. Acad. Sci., VI, 1904, 410, Clipperton Island.

Genus 1442. RHINESOMUS Swainson.

- Rhinesomus* Swainson, Nat. Hist. Classn. Fishes, II, 1839, 194, 324 (*Ostracion triqueter* Linnæus).

4031. *Rhinesomus triqueter* (Linnæus). *Trunkfish*; *Rock shellfish*; *Drunkenfish*; *Chapin*; *Platefish*.

- West Indies, north to the Bermudas; Key West and Pensacola; Woods Hole, Mass.
Ostracion triqueter Linnæus, Syst. Nat. Ed. X, 1758, 330, "India."
Ostracion concatenatus Bloch, Naturgesch. Ausl. Fische, I, 1785, 101, Martinique.

Genus 1443. CHAPINUS Jordan and Evermann.

- Chapinus* Jordan and Evermann, Check List, 1895, 424 (*Ostracion bicaudalis* Linnæus).

⁹² Whether the West Indian *Alutera guntheriana* is distinguishable from *Alutera monoceros* of the Pacific is uncertain.

4032. *Chapinus bicaudalis* (Linnæus). *Chapin; Spotted trunkfish; Pesce toro; Bullfish.*
West Indies, from Cuba to Ascension Island; Tortugas.
Ostracion bicaudalis Linnæus, Syst. Nat., Ed. X, 1758, 330, "India"; after Artedi.

Genus 1444. **LACTOPHRYS** Swainson. *Three-angled trunkfishes.*
Lactophrys Swainson, Nat. Hist. Classn. Fishes, II, 1839, 194, 324
(*Ostracion trigonus* Linnæus, etc.).

4033. *Lactophrys trigonus* (Linnæus). *Common trunkfish; Chapin; Shellfish; Cuckold; Boxfish.*
West Indies, north to Bermuda and Key West; occasionally northward in Gulf Stream to Holmes Hole, Mass., and Chesapeake Bay.
Ostracion trigonus Linnæus, Syst. Nat., Ed. X, 1758, 330, India.
Ostracion yalei Storer, Bost. Jour. Nat. Hist., I, 1836, 353, Holmes Hole and Marthas Vineyard.
Ostracion undulatus Poey, Synopsis, 1868, 441, Habana.
Ostracion expansum Cope, Trans. Amer. Phil. Soc., XIV, 1870, 474, figs. 9-10, locality unknown.

Genus 1445. **ACANTHOSTRACION** Bleeker.
Acanthostracion Bleeker, Atlas Ichth., V, 1865, 27, (*Ostracion quadricornis* Linnæus = *Ostracion tricornis* Linnæus).

4034. *Acanthostracion quadricornis* (Linnæus). *Cuckold; Toro; Cowfish; Horned trunkfish.*
Tropical seas; common from Carolina to Brazil; Marquesas Islands; Florida Keys; occasionally at Pensacola and Galveston and north in the Gulf Stream to Charleston and Chesapeake Bay.
Ostracion tricornis Linnæus, Syst. Nat., Ed. X, 1758, 331, "India"; after Artedi.
Ostracion quadricornis Linnæus, loc. cit., 331, "India"; after Artedi; (this name preferred to the preceding by the first reviser).
Ostracion lister Lacépède, Hist. Nat. Poiss., I, 1798, 468; after Willoughby.
Ostracion sexcornutus Mitchill, Amer. Month. Mag., II, 1818, 328, mouth of Mississippi River.
Ostracion guineensis Bleeker, Ned Tydskr. Dierk., II, 1865?, 298, Guinea.
Ostracion gronovii Bleeker, loc. cit., II, 298, Guinea.
Acanthostracion polygonus Poey, Enumeratio, 1876, 175, Cuba.

Suborder GYMNOTODONTES

Family 299. TETRAODONTIDÆ. Puffers

Genus 1446. **LAGOCEPHALUS**⁹³ Swainson.
Lagocephalus Swainson, Nat. Hist. Classn. Fishes, II, 1839, 194, 328
(*Tetraodon stellatus* Donovan).

4035. *Lagocephalus lævigatus* (Linnæus). *Smooth puffer; Rabbitfish; Smooth swellfish; Tambor.*
Cape Cod to Brazil; rare north of Cape Hatteras.
Tetrodon lævigatus Linnæus, Syst. Nat., Ed. XII, 1766, 411, Charleston, S. C.
Tetrodon curvus Mitchill, Trans. Lit. Phil. Soc., I, 1815, 472, New York.
Tetrodon mathematicus Mitchill, loc. cit., I, 1815, 474, New York.
Holocanthus melanotos Gronow, Syst. Nat., ed. Gray, 1854, 24, Carolinas.
Tetrodon lincolatus Poey, Synopsis, 1868, 432, Cuba.
4036. *Lagocephalus pachycephalus* (Ranzani). *Jugfish.*
Jamaica to Brazil.
Tetrodon pachycephalus Ranzani, Nov. Comm. Ac. Sci. Inst. Bonon., IV, 1840, 73, Pl. X, fig. 2, Brazil.

⁹³ The American species of *Lagocephalus* are very well separated from *Sphæroides* but various Japanese species of the former genus grade off into the latter.

Genus 1447. **SPHÆROIDES** Lacépède. *Swellfishes.*

Les *Sphéroides* Lacépède, Hist. Nat. Poiss., II, 1798, 22, Pl. I, fig. 1

(*La Sphéroide tuberculée*, a front view of *Tetraodon spengleri* Bloch).

Sphæroides, Allegem. Lit. Zeit. Berlin, Sept. 24, 1798, unsigned review, adopts this spelling as a technical name for the genus.

Sphæroides Duméril, Zool. Anal., 1806, 342; after Lacépède.

Orbidus Rafinesque, Analyse de la Nature, 1815, 90 (substitute for Les *Sphéroides* Lacépède).

Crayracion Klein, Gesellschaft Schauplatz, IV, 1777, 788 (*Tetraodon spengleri* Bloch; not binomial); after Klein, 1742.

Holocanthus Gronow, Cat. Fish., 1854 (*H. leionothus* Gronow).

Anchisomus (Kaup) Richardson, Zool. H. M. S. Herald, 1854, 156 (*Tetraodon spengleri* Bloch).

Crayracion Bleeker, Atlas Ichth., 1865, 65 (*Tetraodon spengleri* Bloch).

Stenomelopis Bibron, Rev. Mag. Zool., VIII, 1855, 279 (*Tetraodon testudineus* Linnæus).

4037. **Sphæroides maculatus** (Bloch and Schneider). *Puffer; Swelltoad; Blower; Swellbelly; Swellfish; Toadfish.*

Atlantic coast of the United States from Cape Ann to St. Johns River and Biscayne Bay, Fla.

Tetrodon hispidus var. *maculatus* Bloch and Schneider, Syst. Ichth., 1801, 504, Rhode Island; after Schöpf.

Tetrodon turgidus Mitchell, Trans. Lit. Phil. Soc. N. Y., I, 1815, 473, pl. 5, fig. 5, New York.

4038. **Sphæroides spengleri** (Bloch). *Southern puffer; Swelltoad; Tambor.*

West Indies; coasts of Texas and Florida, south to Rio Janeiro and to the Madeiras and Canaries; rarely north to Woods Hole.

Tetrodon spengleri Bloch, Ichth., I, 1782, 135, pl. 144, East Indies.

Le *Tetrodon* Plumier Hist. Nat. Poiss., I, 1797, 504, Martinique.

Le *Sphéroide tubercule* Lacépède, Hist. Nat. Poiss., II, 1798, 22, Martinique.

Sphæroides tuberculatus Pillot edition of Lacépède, VI, 1831, 279, Martinique.

4039. **Sphæroides nephelus** (Goode and Bean). *Puffer; Swellingfish.*

Florida.

Tetrodon nephelus Goode and Bean, Proc. U. S. Nat. Mus., V, 1882, 412, Indian River and Pensacola, Fla.

4040. **Sphæroides marmoratus** (Ranzani). *Spinyback blowfish; Swellfish.*

West Indies to Brazil; Jamaica.

Tetrodon marmoratus Ranzani, Nov. Comm. Ac. Sci. Inst. Bonon., IV, 1840, 72, pl. 10, fig. 1, Brazil.

4041. **Sphæroides harperi** Nichols.

West Indies (St. Eustatius) north to Florida.

Sphæroides harperi Nichols, Bull. Am. Mus. Nat. Hist., XXXIII, 1914, 81, Cape Sable, Fla.

4042. **Sphæroides asterias** (Blosser).

St. Croix.

Sphæroides asterias Blosser, Ann. Carnegie Mus., VI, 300, 1909, St. Croix.

4043. **Sphæroides eulepidotus** (Metzelaar).

Caribbean Sea.

Tetrodon (Sphæroides) eulepidotus Metzelaar, Trop. Atl. Visschen, 1919, 170, Curaçao.

4044. **Sphæroides lobatus** (Steindachner). *Bolete.*

Gulf of California to Galapagos Islands; Mazatlan; Panama.

Canthogaster? lobatus Steindachner, Ichth. Notizen, X, 1870, 18, pl. 5, fig. 3, Altata.

4045. **Sphæroides angusticeps** (Jenyns).

Pacific coast Lower California (La Paz), to the Galapagos Islands.

Tetrodon angusticeps Jenyns, Voyage Beagle, Fishes, 1842, 154, 28, Galapagos Islands.

Genus 1448. CHEILICHTHYS Müller.

Cheilichthys Müller, Abhandl. Akad. Wiss. Berl., 1839, 252 (*Tetraodon testudineus* Linnæus).

Apsicephalus Hollard, Ann. Sci. Nat., Zool., VIII, 1857, 275 (*Tetrodon fluviatilis* Hamilton).

4046. Cheilichthys testudineus (Linnæus). *Tambor; Glovefish; Blowfish; Swellfish; Puffer.*

West Indies; Gulf Stream, occasionally to Newport, R. I.

Orbis lavis variegatus Catesby, Nat. Hist. Carolinas, II, 1743, 28, pl. 28, Virginia.

Tetraodon testudineus Linnæus, Syst. Nat., Ed. X, 1758, 332, India; based on Balk and Artedi.

?*Tetrodon punctatus* Bloch and Schneider, Syst. Ichth., 1801, 506, Brazil.

Tetrodon geometricus Bloch and Schneider, loc. cit., 508, Virginia; after Catesby.

Tetraodon ammocryptus Gosse, Nat. Sojourn Jamaica, 1851, 287, Jamaica.

Holocanthus leionothos Gronow, Cat. Fishes, ed. Gray, 1854, 24, American oceans.

4047. Cheilichthys annulatus (Jenyns).

Pacific coast of tropical America; Galapagos Islands.

Tetrodon annulatus Jenyns, Zool. Beagle, 1842, 153, Galapagos Islands.

Anchisomus geometricus (Kaup) Richardson, Voyage Herald, 1854, 156, pl. 30, Galapagos Islands.

Tetrodon heraldi Günther, Cat., VIII, 1870, 283, Galapagos Islands and Panama.

4048. Cheilichthys politus (Girard).

Pacific coast of tropical America, San Diego to Mazatlan.

Tetraodon politus Girard, Pacific R. R. Surv., X, 1858, 340, San Diego, Calif.

4049. Cheilichthys fürthi (Steindachner).

Panama.

Tetrodon fürthii Steindachner, Ichth. Beitr., V, 1876, 22, Panama.

4050. Cheilichthys trichocephalus (Cope). *Hairy blowfish.*

Gulf Stream off Newport, R. I.; only the type known.

Tetraodon trichocephalus Cope, Proc. Acad. Nat. Sci. Phila., XXII, 1870, 120, Gulf Stream off Newport, R. I.

4051. Cheilichthys pachygaster (Müller and Troschel).

Barbados.

Tetrodon (*Cheilichthys*) *pachygaster* Müller and Troschel, in Schomburgk's Hist. Barbados, 1848, 677, Barbados.

Genus 1449. TETRAODON Linnæus.

Tetraodon Linnæus, Syst. Nat., Ed. X, 1758, 333 (*T. lineatus* Linnæus).

Les Ovoides Lacépède, Hist. Nat. Poiss., I, 1797, 256 (fascé, face view).

Ovoides Cuvier, Leçons Anat. Comp., I, 1800, tab. 1 (*Ovoides fasciatus* Lacépède = *Tetraodon stellatus* Linnæus).

Ovum Bloch and Schneider, Syst. Ichth., 1801, 530 (*O. commersoni* Bloch and Schneider "l'Ovoide Fascé" Lacépède, 1797); preoccupied in mollusks.

Oonidas Rafinesque, Anal. Nat., 1815, 90, for "les Ovoides" of Lacépède.

Arothron Müller, Abh. Akad. Wies. Berlin, 1839, 252 (*A. testudinatus* Müller = *Tetraodon reticularis* Bloch and Schneider).

Dilobomycter Bibron, Rev. Mag. Zool., VIII, 1855, 279 (*Tetraodon reticularis* Bloch and Schneider).

Dichotomycter Bibron, loc. cit., 279 (*Tetraodon fluviatilis* Hamilton).

4052. **Tetraodon hispidus** Linnaeus. *Maki-maki; Kete.*
Panama and neighboring islands; Hawaii; Samoa; to China and the Red Sea.
Tetraodon hispidus Linnaeus, Syst. Nat., Ed. X, 1758, 333, India.
Tetraodon perspicillaris Rüppell, Atlas, Reise Nord Africa, 1828, 63, Red Sea.
Tetrodon implutus Jenyns, Voy. *Beagle*, Fish., 1842, 152, Keeling Island.
Tetrodon laterna Richardson, Voy. *Sulphur*, Zool., 1844, 124, pl. 61, fig. 2, Canton, China.
*Arothron erethizon*⁹⁴ Jordan and Gilbert, Proc. U. S. Nat. Mus., V, 1882, 631, Panama.

Subgenus **OVOIDES** Cuvier.

4053. **Tetraodon setosus** Smith.
West coast of Mexico; Revillagigedo, Clipperton, Cocos, and Galapagos Islands.
Tetraodon setosus Smith, Bull. Calif. Acad. Sci., 2d ser., VI, Nov. 13, 1886, Mexico.

Genus 1450. **GUENTHERIDIA** Gilbert and Starks.

Guentheridia Gilbert and Starks, Mem. Calif. Acad. Sci., IV, 1904, 158 (*Tetrodon formosus* Günther).

4054. **Guentheridia formosa** (Günther).
Panama.
Tetrodon formosus Günther, Cat., VIII, 1870, 283, "South America."

Genus 1451. **COLOMESUS** Gill.

Colomesus Gill, Proc. U. S. Nat. Mus., VII, 1884, 422 (*Tetrodon psittacus* Bloch and Schneider).

4055. **Colomesus psittacus** (Bloch and Schneider).
River mouths, Guiana and northern Brazil; Rio Branco, Essequibo, Marañon, and Capin at Para; West Indies in fresh waters only.
Tetrodon psittacus Bloch and Schneider, Syst. Ichth., 1801, 505, "Malabar."
Cheilichthys asellus Müller and Troschel, in Schomburgk, British Guiana, III, 1848, 641, Guiana.

Family 300. **CANTHIGASTERIDÆ**. Sharp-nosed puffers

Genus 1452. **CANTHIGASTER** Swainson.

Canthigaster Swainson, Nat. Hist. Fish., Amphib., etc., II, 1835, 194 (*Tetraodon rostratus* Bloch, called *Psilonotus* later in the text).
Psilonotus Swainson, loc. cit., 1835, 328, same type.
Prilonotus (Kaup) Müller, Richardson, Voyage *Herald*, 1854, 162 (*Tetrodon rostratus* Bloch).
Tropidichthys Bleeker, Nat. Tijdschr. Neder-Indie, VI, 501 (*T. margaritatus* Bleeker).
Anosmius Peters, Monatsber. Akad. Wiss. Berlin, XXI, 1855, 274 (*T. tæniatus* Peters).
Eumycterias Jenkins, Bull. U. S. Fish Com., XIX, 1899, 399 (*E. bitæniatus* Jenkins).

4056. **Canthigaster rostratus** (Bloch).
West Indian fauna; Pensacola; Madeiras and Bermudas.
Tetrodon rostratus Bloch, Ichth., I, 1782, pl. 146, India.
Tetrodon capistratus Lowe, Proc. Zool. Soc. Lond., 1839, 90, Madeira.
Prilonotus (*Anchisomus*) *caudacinctus* Richardson, Voyage *Herald*, 1854, 162, pl. 30, figs. 1-3, locality unknown.
Tetrodon ornatus Poey, Synopsis, 1868, 433, Cuba.

4057. **Canthigaster punctatissimus** (Günther).
Pacific coast of America, Gulf of California to Panama.
Tetrodon punctatissimus Günther, Cat., VIII, 1870, 302, Panama.
Tetrodon oxyrhynchus Lockington, Proc. Acad. Nat. Sci. Phila., XXXIII, 1881, 116, Gulf of California.

⁹⁴ This American form shows no distinction from the widespread *Tetraodon hispidus*.

Family 301. DIODONTIDÆ

Genus 1453. DIODON Linnæus. *Porcupinefishes*.

Diodon Linnæus, Syst. Nat., Ed. X, 1758, 335 (*D. hystrix* Linnæus).

Paradiodon Bleeker, Neder. Tijdschr. Dierk., II, 1865, 271 (*Diodon hystrix* Linnæus).

4058. *Diodon hystrix* Linnæus. *Porcupinefish*; *Erizo*; *Puerco espino*; *Soursap*. Tropical seas, north to Lower California, Hawaii, and Florida.

Diodon hystrix Linnæus, Syst. Nat., Ed. X, 1758, 335, India; after Artedi.

Guamajacu guara Marcgrave, Hist. Nat. Bras., 1648, 159, Brazil.

Erizo Parra, Desc. Dif. Piezas Hist. Nat. Cuba, 1787, 60, pl. 29, fig. 1, Habana.

Le Diodon plumier Lacépède, Hist. Nat. Poiss., II, 1798, 1, pl. 3, fig. 3, Martinique.

Diodon brachiatus Bloch and Schneider, Syst. Ichth., 1801, 513, Cuba.

Diodon punctatus Cuvier, Mém. du Mus. d'Hist. Nat., IV, 1818, 132, no locality.

Diodon echinus Rafinesque, in Bonaparte, Cat. Met. Pisc. Eur., 1846, 87, Mediterranean Sea.

4059. *Diodon holacanthus* Linnæus. *Balloonfish*.

All warm seas; north to Florida Keys, Lower California, and Hawaiian Islands.

Diodon holacanthus Linnæus, Syst. Nat., ed. X, 1758, 335, India; based on Artedi (misprint).

Erizo guanabana Parra, Desc. Dif. Piezas Hist. Nat. Cuba, 1787, 62, pl. 29, fig. 2, Habana.

Le Diodon tachté Lacépède, Hist. Nat. Poiss., II, 1798, 13, New Cytherea.

Diodon liturosus Shaw, Gen. Zool., V, 1804, 436; after Lacépède.

Diodon spinosissimus Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 134, pl. 7, no locality.

Diodon novem-maculatus Cuvier, loc. cit., 136, pl. 6, no locality.

Diodon sex-maculatus Cuvier, loc. cit., 136, pl. 7, no locality.

Diodon multimaculatus Cuvier, loc. cit., 137, no locality.

Diodon 4-maculatus Cuvier, loc. cit., 137, pl. 6, Otaïti.

Diodon maculatus var. a, Günther, Cat., VIII, 1870, 307, St. Croix; Jamaica; Panama; South America, etc.; after Lacépède.

Diodon melanopsis Kaup, Wiegmann's Archiv, 1855, 228.

4060. *Diodon maculifer* Kaup.

Cape of Good Hope; recorded doubtfully from Cuba.

Diodon maculifer Kaup, Wiegmann's Archiv, 1855, 229, Cape of Good Hope.

Genus 1454. TRICHODIODON Bleeker.

Trichodiodon Bleeker, Atlas Ichth., Gymnodontes, V, 1867, 49 (*Diodon pilosus* Mitchill).

Trichocyclus Günther, Cat., VIII, 316 (*T. erinaceus* Günther).

4061. *Trichodiodon pilosus* (Mitchill). *Balloonfish*; *Hairy porcupinefish*; *Hairy boxfish*.

New York.

Diodon pilosus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 471; supposed to be from New York Harbor.

Diodon asper Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 138; no locality.

?*Trichocyclus erinaceus* Günther, Cat., VII, 1870, 316; no locality.

Genus 1455. CYCLICHTHYS Kaup. *Swelltoads*.

Cyclichthys Kaup, Wiegmann's Archiv, XXI, 1855, 231 (*Diodon orbiculatus* Bloch).

4062. *Cyclichthys schœpfi* (Walbaum). *Burrfish; Cucumberfish; Spotted balloonfish; Balloonfish; Rabbitfish; Swellload; Spiny boxfish.*
Cape Cod to West Indies and occasionally northward to Woods Hole, Mass.
Diodon schœpfi Walbaum, Artedi Pisc., 1792, 601, Long Island; after Schöpf.
? *Diodon meuleni* Walbaum, loc. cit., 602; no locality.
Diodon geometricus lineatus Bloch and Schneider, Syst. Ichth., 1801, 513, New York.
Diodon maculato striatus Mitchill, Fish. N. Y., 470, pl. 56, fig. 3, 814, New York.
Diodon rivulatus Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 129, pl. 6, New York.
Diodon nigrolineatus Ayres, Proc. Bost. Soc. Nat. Hist., I, 1842, 68, Brookhaven, Long Island.
Diodon verrucosus DeKay, N. Y. Fauna: Fishes, 324, 1842, pl. 56, fig. 184, New York.
4063. *Cyclichthys spinosus* (Linnæus).
West Indies and coast of Brazil.
Guamaicu atinga Marcgrave, Hist. Brasil., 1648, 168, Brazil.
Diodon spinosus Linnæus, Syst. Nat., Ed. X, 1758, 335, India.
Le Diodon orbe Lacépède, Hist. Nat. Poiss., II, 1798, 16, Rio Janeiro.
Diodon geometricus Bloch and Schneider, Ichth., 1801, 513, pl. 96, America.
Cyclichthys cornutus Kaup, Wiegmann's Archiv, 1855, 231, Bahia.
4064. *Cyclichthys fuliginosus* (DeKay). *Black burrfish; Unspotted balloonfish.*
Atlantic coast from Cape Cod southward; not common.
Diodon fuliginosus DeKay, N. Y. Fauna: Fishes, 1842, 324, pl. 55, fig. 181, New York Harbor.
4065. *Cyclichthys antillarum* (Jordan and Rutter).
Cuba and Jamaica.
Chilomycterus antillarum Jordan and Rutter, Proc. Acad. Nat. Sci. Phila., XLIX, 1897, 131, Kingston, Jamaica.
4066. *Cyclichthys briareos* (Metzelaar).
Lesser Antilles.
Chilomycterus briareos Metzelaar, Trop. Atl. Vissch., 1919, 173, fig. 55, St. Eustatius.
4067. *Cyclichthys antennatus* (Cuvier).
West Indies and southward; St. Croix; Jamaica; Porto Rico; Cape of Good Hope.
Diodon antennatus Cuvier, Mém. Mus. Hist. Nat., IV, 1818, 131; no locality.
? *Chilomycterus puncticulatus* Poey, Anal. Soc. Española Hist. Nat., X, 1881, 346, Porto Rico.
- Genus 1456. **CHILOMYCTERUS** Bibron. *Burrfishes.*
Chilomycterus Bibron, in Barneville, Rev. Zool., 1846, 40 (*Diodon reticulatus* Linnæus = *Diodon atinga* Linnæus).
Cyanichthys Kaup, Wiegmann's Archiv, IV, 1855, 231 (*C. cærulæus* Kaup; not of Quoy and Gaimard).
Diodon Bleeker, Atlas Ind. Gymnod., 1865, 55 (*D. atinga*); not of authors, who, after Kaup, restrict *Diodon* to *D. hystrix*.
- Subgenus **CHILOMYCTERUS** Bibron.
4068. *Chilomycterus atinga* (Linnæus). *Atinga.*
West Indies to Bermuda and Florida Keys.
Diodon atinga (misprinted *atinga*) Linnæus, Syst. Nat., Ed. X, 1758, 334, India.
Diodon reticulatus Linnæus, loc. cit., 334, India; after Artedi.
4069. *Chilomycterus affinis* Günther.
Galapagos; coast of southern California; Hawaii, Japan; scarce.
Chilomycterus affinis Günther, Cat., VIII, 1870, 314, no locality; California?
Chilomycterus californiensis Eigenmann, Amer. Nat., V, 1891, 1133, San Pedro, Calif.

Genus 1457. LYOSPHERA Evermann and Kendall.

Lyosphæra Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 131 (*L. globosa* Evermann and Kendall).

4070. Lyosphæra globosa Evermann and Kendall. *Marblefish*.

Atlantic coast of the United States; known from the mouth of the Rappahannock River and from Biscayne Bay, Fla.

Lyosphæra globosa Evermann and Kendall, Bull. U. S. Fish Com., XVII, 1897, 131, pl. 9, figs. 11 and 12, Rappahannock River near mouth of Windmill Creek, Va.

Family 302. MOLIDÆ. Headfishes**Genus 1458. MOLA** Kœlreuter. *Headfishes*.

Mola Kœlreuter, Nova Comm. Act. Petropol., VII, 1770, 337 (*Diodon mola* Kœlreuter = *Diodon mola* Linnæus).

Mola Cuvier, Tableau Elem. Hist. Nat. Anim., 1798, 323 (*M. rotunda* Cuvier = *Tetrodon mola* Linnæus).

Orthogoriscus Schneider, ed. Bloch, Syst. Ichth., 1801, 510 (*Diodon mola* Bloch).

Cephalus Shaw, Gen. Zool., V, 1804, 432 (*Diodon mola* Linnæus).

Orthragus Rafinesque, Caratteri, 1810, 17 (*Tetrodon mola* Linnæus).

Diplanchias Rafinesque, loc. cit., 17 (*D. nasus* Rafinesque).

Tympanomium Ranzani, Novi Comm. Acad. Sci. Inst. Bonon., III, 1839, 81 (*T. planci* Ranzani).

Ozadura Ranzani, loc. cit., 81 (*O. orsini* Ranzani = *Mola mola* Linnæus).

Trematopsis Ranzani, loc. cit., 81 (*T. willughbei* Ranzani).

Pedalion Swainson, Nat. Hist. Fish. Amphib. etc., I, 1838, 199, II, 195, 329 (*Tetrodon mola* Linnæus).

Molacanthus Swainson, loc. cit., II, 1839, 329 (*M. pallasii* Swainson = *Diodon mola* Pallas, young).

Pallasia Nardo, Ann. Sci. Lombardo-Veneto, X, 1839, V, 10, 112 (*P. pallasii* Nardo).

Acanthosoma DeKay, Nat. Hist. N. Y., 1842, 350 (*A. carinatum* DeKay).

Centaurus Kaup, Wiegmann's Archiv Naturg., XXI, 1855, 221 (*Ostracion boops* Richardson; larval).

Aledon Castelnau, Mém. Poiss., Afr. Aust., VII, 1861, 75 (*A. storeri* Castelnau).

4071. Mola mola (Linnæus). *Ocean sunfish; Globefish; Sunfish; Headfish; Mola; Pez luna; Pez mola*.

Temperate and tropical seas, northward to England, Cape Cod, and San Francisco; rare in the West Indies.

Tetrodon mola Linnæus, Syst. Nat., Ed. X, 1758, 334, 412, Mediterranean.

Diodon carinatus Mitchell, Ann. Lyc. Nat. Hist. New York, II, 1815, 264, pl. 5, fig. 1, New York.

Ozodura orsini Ranzani, Nov. Comm. Ac. Sci. Inst. Bonon., III, 1839, 82, Mediterranean Sea.

Tympanomium planci Ranzani, loc. cit., table, Adriatic Sea.

Diplanchias nasus Ranzani, loc. cit., table, "in mari siculo" (Sicily).

Trematopsis willughbei Ranzani, loc. cit., table, "in oceano."

Orthragoriscus retzii Ranzani, loc. cit., table, no locality.

Orthragoriscus ghini Ranzani, loc. cit., table, Mediterranean Sea.

Orthragoriscus rondeletii Ranzani, loc. cit., Mediterranean Sea.

Orthragoriscus blochii Ranzani, loc. cit., "in mari oceano."

Orthragoriscus alexandrini Ranzani, loc. cit., Adriatic Sea.

Orthragoriscus redi Ranzani, loc. cit., Mediterranean Sea.

Orthragoriscus oculatus Ranzani, loc. cit., no locality.

Orthragoriscus elegans Ranzani, loc. cit., Atlantic Ocean.

Orthragoriscus ballaræ Ranzani, loc. cit., Adriatic Sea.

Orthragoriscus lunaris Gronow, Cat. Fishes, ed. Gray, 1854, 165, Mediterranean.

Orthragoriscus solaris Gronow, loc. cit., 165, Mediterranean.

Orthragoriscus analis Ayres, Proc. Calif. Acad. Nat. Sci., II, 1859, 31, fig. 54, San Francisco.

Ostracion boops Richardson, Voy, *Erebus* and *Terror*, Ichth., 1844, 52, South Atlantic (larva).

Genus 1459. **RANZANIA** Nardo. *King of the mackerels.*

Ranzania Nardo, Ann. Sci. Regn. Lombard. Venet., X, 1840, 105
(*Tetrodon truncatus* Retzius).

4072. **Ranzania truncata** (Retzius).

Pelagic; occasionally on the Atlantic coast; Bermudas; Martinique.

Tetrodon truncatus Retzius, Vet. Ak. Nya. Handl., VI, 1785, 2, 121,
Brazil.

4073. **Ranzania makua** Jenkins.

Open Pacific, Hawaii to Japan; very rare, once found on Pismo Beach
near Oceano, San Luis Obispo County, Calif.

Ranzania makua Jenkins, Proc. Calif. Acad. Sci., 2d ser., V, 1895, 779.
with colored plate (frontispiece), Honolulu; probably not different
from *Ranzania truncata*; see Snyder, Proc. U. S. Nat. Mus., XLIV,
1913, 455.

Order AAA. PEDICULATI

Family 303. LOPHIIDÆ. Fishing frogs

Genus 1460. **LOPHIUS** Linnæus.

Lophius Linnæus Syst. Nat., Ed. X, 1758, 236 (*Lophius piscatorius*
Linnæus); after Artedi.

4074. **Lophius piscatorius** Linnæus. *Fishing frog; Monkfish; Goosefish;*
Angler; Allmouth; Bellowsfish.

North Atlantic, on both coasts.

Lophius piscatorius Linnæus, Syst. Nat., Ed. XII, 1766, 402, Seas of
Europe.

Lophius americanus Cuvier and Valenciennes, Hist. Nat. Poiss., XII,
1837, 380, Philadelphia.

Genus 1461. **LOPHIOMUS** Gill.

Lophiomus Gill, Proc. U. S. Nat. Mus., V, 1882, 552 (*Lophius setigerus*
Vahl.)

4075. **Lophiomus setigerus** (Vahl).

Pacific Ocean; not uncommon in rather deep water off coasts of China
and Japan; one specimen from Albatross station 2805, southwest of
Panama.

Lophius setigerus Vahl, Skrivt. Naturh., IV, 1797, 214, tab. 3, figs. 5
and 6, China Sea.

Lophius viviparus Bloch and Schneider, Syst. Ichth., 142, 1801, tab.
32, China Sea; after Vahl.

Family 304. ANTENNARIDÆ. Frogfishes

Genus 1462. **HISTRIO** Fischer.

*Histrio*⁹⁵ Fischer, Zoog., Tab. Syn. Illust., Ed. III, I, 1813 (*Lophius*
histrio Linnæus).

Pterophryne Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 90 (*Chironectes*
lævigatus Cuvier; name preoccupied).

Pterophrynoides Gill, Proc. U. S. Nat. Mus., I, 1878, 216 (*Chironectes*
lævigatus Cuvier); substitute for *Pterophryne*).

4076. **Histrio pictus** (Cuvier and Valenciennes). *Mousefish; Sargassumfish.*

Tropical parts of the Atlantic; abundant on our Gulf coast and occa-
sional to Cape Hatteras and beyond.

Lophius tumidus Osbeck, Iter Chinensis, 1757, 400, open sea; pre-
Linnæan.

Chironectes pictus Cuvier and Valenciennes, Hist. Nat. Poiss., XII,
1837, 393, Surinam.

Chironectes tumidus Cuvier and Valenciennes, loc. cit., 397, Sargasso Sea.

Chironectes arcticus Düben and Koren, K. Vet. Akad. Stockholm, 1844,
72, Vadsö, Norway, carried northward on the Gulf Stream.

⁹⁵ Name questionable on account of error in the published diagnosis, the description interchanged with
that of *Lophius*.

4077. **Histrio gibba** (Mitchill).
West Indies, north to Key West and the Tortugas.
Lophius gibbus Mitchill, Trans. Lit. Phil. Soc. N. Y., I, 1815, 1, pl. 4, fig. 9, off St. Croix, lat. 22° N., long. 64° W.
Chironectes laevigatus Cuvier, Mém. Mus., III, 1817, 423, pl. 16, fig. 1; South Carolina.
4078. **Histrio jagua** Nichols.
Bermuda.
Histrio jagua Nichols, Proc. Biol. Soc. Wash., XXXIII, 1920, 62, Bermuda.
- Genus 1463. **ANTENNARIUS** ⁹⁶ Lacépède.
Antennarius Lacépède, Hist. Nat. Poiss., I, 1798, 421 (*Antennarius bivertex totus ater puncto mediorum, laterum albo* Commerson (in footnote) = *Lophius commersonianus* Lacépède).
Chironectes Cuvier, Mém. Mus., III, 1817, 418 (*Lophius commersonianus* Lacépède).
Capellaria Gistel, Thierreich, VIII, 1848 (*Lophius commersonianus* Lacépède).
4079. **Antennarius scaber** (Cuvier).
Caribbean Sea; Port Castries; St. Lucia.
Chironectes scaber Cuvier, Mém. Mus., III, 1817, 425, pl. 16, fig. 2, Martinique.
Lophius spectrum Gronow, Cat. Fish., ed. Gray, 1854, 49, Antilles; after *Lophius acute scabra* Gronow, Zoophyl., 1781, 210.
4080. **Antennarius inops** Poey.
Porto Rico.
Antennarius inops Poey, Anal. Soc. Esp. Hist. Nat., X, 1881, 340 Porto Rico.
4081. **Antennarius principis** (Cuvier and Valenciennes).
West Indies to Brazil.
Chironectes principis Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 416, Brazil; on a drawing by Prince Maurice.
? *Chironectes mentzeli* Cuvier and Valenciennes, loc. cit., 416, Brazil; on a drawing.
4082. **Antennarius tenebrosus** (Poey).
Cuba.
Chironectes tenebrosus Poey, Memorias, I, 1853, 219, pl. 17, fig. 1, Cuba.
4083. **Antennarius reticularis** Gilbert.
Gulf of California; only the type known.
Antennarius reticularis Gilbert, Proc. U. S. Nat. Mus., XIV, 1891, 566; Gulf of California at Albatross station 2825.
4084. **Antennarius strigatus** Gill.
Cape San Lucas; Panama.
Antennarius strigatus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 92; Cape San Lucas.
Antennarius tenuifilis Günther, Fish. Cent. Amer., 1869, 440, Panama; young.
4085. **Antennarius sanguineus** Gill.
Pacific coast of tropical America, Cape San Lucas to Panama; scarce.
Antennarius sanguineus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 91; Cape San Lucas.
Antennarius leopardinus Günther, Proc. Zool. Soc. Lond., 1864, 151; Panama.
4086. **Antennarius ocellatus** (Bloch and Schneider).
West Indies, north to Florida.
Pescador Parra, Dif. Piezas, Hist. Nat., 1780, 1, tab. 1, Cuba.
Lophius histrii, var. *ocellatus* Bloch and Schneider, Syst. Ichth., 142, 180; after Parra.
Antennarius pleurophthalmus Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 92; Key West.

⁹⁶ These fishes vary considerably in color and more or less in form. It is likely that the number of species should be reduced.

4087. *Antennarius tigris* (Poey).
Cuba.
Chironectes tigris Poey, *Memorias*, I, 1853, 217, pl. 17, fig. 2; Cuba.
4088. *Antennarius nuttingii* Garman.
Great Bahama Banks.
? *Chironectes mentzelii* Cuvier and Valenciennes, *Hist. Nat. Poiss.*, XII, 1837, 417; Brazil; on a drawing by Prince Maurice.
Antennarius nuttingii Garman, *Bull. Iowa Lab. Nat. Hist.*, 1896, 83, Pl. II; Great Bahama Banks.
4089. *Antennarius multiocellatus* (Cuvier and Valenciennes). *Martin pescador*.
Garden Key, Fla., to Martinique.
Chironectes multiocellatus Cuvier and Valenciennes, *Hist. Nat. Poiss.*, XI, 1837, 422, Martinique.
Antennarius annulatus Gill, *Proc. Acad. Nat. Sci. Phila.*, XV, 1863, 91, Garden Key, Fla.
Antennarius corallinus Poey, *Repertorio*, I, 1865, 188, Cuba.
4090. *Antennarius radiosus* Garman.
Key West.
Antennarius radiosus Garman, *Bull. Lab. Nat. Hist. Iowa Univ.*, 1896, 85, pl. 1, off Key West in 50 fathoms.
4091. *Antennarius sonntagii* (Baron Müller).
Gulf of Mexico.
Chironectes sonntagii Baron J. W. von Müller, *Reisen in den Verein. Staat.*, etc., Band I, 1864, 180, in floating seaweed, no exact locality stated.
4092. *Antennarius avalonis* Jordan and Starks.
Santa Barbara Islands.
Antennarius avalonis Jordan and Starks, *Proc. U. S. Nat. Mus.*, XXXII, 1907, 77, fig. 8, Santa Catalina Island at Avalon, Calif.
4093. *Antennarius verrucosus* Bean.
Bermudas.
Antennarius verrucosus Bean, *Proc. Biol. Soc. Wash.*, XIX, 1906, 31, St. George Island, Bermuda Islands.
4094. *Antennarius astroscopus* Nichols.
Barbados.
Antennarius astroscopus Nichols, *Bull. Amer. Mus. Nat. Hist.*, XXXI, 1912, 109, Barbados.

Family 305. CHAUNACIDÆ

Genus 1464. CHAUNAX Lowe.

- Chaunax* Lowe, *Proc. Zool. Soc. Lond.*, XIV, 1846, 339 (*C. pictus* Lowe).
4095. *Chaunax pictus* Lowe.
Madeira; taken off the coast of Rhode Island in the Gulf Stream.
Chaunax pictus Lowe, *Trans. Zool. Soc. Lond.*, 1846, 339, Camera de Lobos, Madeira.
4096. *Chaunax nuttingi* Garman.
Florida Keys,
Chaunax nuttingi Garman, *Bull. Nat. Hist. Iowa Univ.*, 1896, 86, Sand Key Light, Fla.

Family 306. OGCOCEPHALIDÆ. Batfishes

Genus 1465. OGCOCEPHALUS Fischer. *Seabats*.

- Ogcocephalus* Fischer, *Zoognosia*, ed. 3, I, 1813, 70, 78 (*Lophius vespertilio* Linnæus).
Ogcocephalus Gill, corrected spelling.
Malthe Cuvier, *Règne Anim.*, ed. 1, II, 1817, 311 (*Lophius vespertilio* Linnæus).
Malthæa of authors, modified spelling.

4097. *Ogcocephalus vespertilio* (Linnæus). *Batfish; Diablo*.
West Indies, north to Carolina.
Lophius vespertilio Linnæus, Syst. Nat., Ed. X, I, 1758, 236, American seas; after *Lophius fronti unicorni* of Artedi.
4098. *Ogcocephalus nasutus* (Cuvier and Valenciennes).
West Indies.
Malthæa nasuta Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 452, Martinique.
Malthæa notata Cuvier and Valenciennes, loc. cit., 453, Surinam; snout 15 in length; body spotted.
4099. *Ogcocephalus radiatus* (Mitchill).
Coast of Florida and neighboring waters; very common in shallow bays among weeds, especially about the Florida keys.
Lophius radiatus Mitchill, Amer. Month. Mag., March, 1818, 326, Straits of the Bahamas.
Malthe cubifrons Richardson, Fauna Bor.-Amer., III, 1836, 103; said to be from Labrador, which is certainly an error.
? *Malthæa truncata* Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 454, America; snout wholly obsolete; perhaps a species of *Zalieutes*.
- Genus 1466. *ZALIEUTES* Jordan and Evermann.
Zalieutes Jordan and Evermann, Check List, 1895, 511 (*Malthe elater* Jordan and Gilbert).
4100. *Zalieutes elater* (Jordan and Gilbert).
Pacific coast of Mexico, south to Panama, in water of moderate depth; very rare near the shore but obtained in abundance by the *Albatross* at stations 2794 and 2795 near Panama.
Malthe elater Jordan and Gilbert, Proc. U. S. Nat. Mus., IV, 1881, 365, Mazatlan.
- Genus 1467. *MALTHOPSIS* Alcock.
Malthopsis Alcock, Deep Sea Fish. Invest., Ann. Mag. Nat. Hist., VIII, 1891, 26 (*M. luteus* Alcock).
4101. *Malthopsis spinosa* Garman.
Off Bay of Panama in deep water.
Malthopsis spinosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 104, Pl. XXII, *Albatross* stations 3392 and 3393, off Panama, in 1,020 to 1,270 fathoms.
4102. *Malthopsis spinulosa* Garman.
Off Bay of Panama, in deep water.
Malthopsis spinulosa Garman, Mem. Mus. Comp. Zool., XXIV, 1899, 106, Pls. XXI, XXVI, *Albatross* station 3394, lat. 7° 21' N., long. 79° 35' W. in 511 fathoms.
- Genus 1468. *HALIEUTICHTHYS* Poey.
Halieutichthys Poey, Proc. Acad. Nat. Sci. Phila., XV, 1863, 90 (*H. reticulatus* Poey = *Lophius aculeatus* Mitchill).
4103. *Halieutichthys aculeatus* (Mitchill).
Cuba to southern Florida.
Lophius aculeatus Mitchill, Amer. Month. Mag., II, 1818, 325, Straits of Bahamas.
Halieutichthys reticulatus Poey, in Gill, Proc. Acad. Nat. Sci. Phila., XV, 1863, 91, Cuba.
4104. *Halieutichthys caribbæus* Garman.
Jamaica to Barbados, in depths of 70 to 150 fathoms or more.
Halieutichthys caribbæus Garman, Bull. Lab. Nat. Hist. Iowa Univ., 1896, 87, pl. 4, fig. 2, Jamaica to Barbados.
4105. *Halieutichthys smithii* Evermann and Marsh.
Porto Rico.
Halieutichthys smithii Evermann and Marsh, Bull. U. S. Fish Com., XX, 1900, 339, fig. 112, Mayaguez Harbor, Porto Rico.
- Genus 1469. *HALIEUTÆA* Cuvier and Valenciennes.
Halieutæa Cuvier and Valenciennes, Hist. Nat. Poiss., XII, 1837, 455 (*H. stellata* Cuvier and Valenciennes).

4106. *Halieutæa spongiosa* Gilbert.
Pacific Ocean, off Lower California.
Halieutæa spongiosa Gilbert, Proc. U. S. Nat. Mus., XIII, 1890, 124,
west of Revillagigedo Islands, at *Albatross* station 2992, lat. $18^{\circ} 17'$
 $30''$ N., long. $114^{\circ} 43' 15''$ W., in 460 fathoms.
- Genus 1470. *HALIEUTELLA* Goode and Bean.
Halieutella Goode and Bean, Proc. Biol. Soc. Wash., II, 1885, 88 (*H. lappa* Goode and Bean).
4107. *Halieutella lappa* Goode and Bean.
Gulf Stream.
Halieutella lappa Goode and Bean, Proc. Biol. Soc. Wash., II, 1882, 88,
Gulf Stream at *Fish Hawk* station 1151, lat. $39^{\circ} 58' 30''$ N., long.
 $70^{\circ} 37'$ W., in 125 fathoms.
- Genus 1471. *DIBRANCHUS* Peters.
Dibranchus Peters, Monatsber. Akad. Wiss. Berlin, 1875, 736 (*D. atlanticus* Peters).
4108. *Dibranchus atlanticus* Peters.
Gulf Stream.
Dibranchus atlanticus Peters, Monatsber. K. Akad. Wiss. Berlin, 1875,
736, with plate; West Africa, lat. 10° N. long. 17° W., in 360 fathoms.
- Family 307. CERATIIDÆ. Sea devils
- Genus 1472. *CERATIAS* Krøyer.
Ceratias Krøyer, Naturhist. Tidsskr., I, 1845, 639 (*C. hollbolli* Krøyer).
4109. *Ceratias hollbolli* Krøyer.
Greenland to Nova Scotia; four specimens known.
Ceratias hollbolli Krøyer, Naturh. Tidsskr., 1844, 639, Greenland.
- Genus 1473. *MANCALIAS* Gill.
Mancalias Gill, Proc. U. S. Nat. Mus., I, 1878, 227 (*Ceratias uranoscopus* Murray).
Typhlosaras Gill, Forest and Stream, 1883, Nov. 8, 284 (*T. shufeldti* Gill).
4110. *Mancalias uranoscopus* (Murray).
Deep seas; taken at Madeira and off the coast of southern New England.
Ceratias uranoscopus Murray, in Wyville Thompson, The Atlantic, II,
1878, 67, off Madeira.
4111. *Mancalias shufeldti* (Gill).
Western Atlantic.
Typhlosaras shufeldti Gill, Forest and Stream, November 8, 1883, 284,
western Atlantic.
- Genus 1474. *CRYPTOSARAS* Gill.
Cryptosaras Gill, Forest and Stream, Nov. 8, 1883 (*C. couesi* Gill).
4112. *Cryptosaras couesi* Gill.
Gulf Stream.
Cryptosaras couesi Gill, Forest and Stream, Nov. 8, 1883, 284, Gulf
Stream off New England.
- Genus 1475. *EDRIOLYCHNUS* Regan.
Edriolychnus Regan, Proc. Roy. Soc. Lond., ser. B, XCVII, 1925, 398
(*E. schmidti* Regan).
4113. *Edriolychnus schmidti* Regan.
Deep waters of the western Atlantic.
Edriolychnus schmidti Regan, Proc. Royal Soc. Lond., ser. B, XCVII,
1925, 398, western Atlantic; *Dana* expedition.
- Genus 1476. *MONOCERATIAS* Gilbert.
Monoceratias Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915, 379 (*M. acanthias* Gilbert).
4114. *Monoceratias acanthias* Gilbert.
Off Santa Barbara Islands, Calif.
Monoceratias acanthias Gilbert, Proc. U. S. Nat. Mus., XLVIII, 1915,
379, pl. 22, fig. 24, off Santa Cruz Island, 764 to 891 fathoms,

Genus 1477. BOROPHRYNE Regan.

Borophryne Regan, Ann. Mag. Nat. Hist., ser. 9, XV, 1925, 564 (*B. apogon* Regan).

4115. Borophryne apogon Regan.

Gulf of Panama.

Borophryne apogon Regan, Ann. Mag. Nat. Hist., ser. 9., XV, 1925, 564, Gulf of Panama.

Genus 1478. PHOTOCORYNUS Regan.

Photocorynus Regan, Proc. Roy. Soc. Lond., ser. B, XCVII, 1925, 393 (*P. spiniceps* Regan).

4116. Photocorynus spiniceps Regan.

Deep waters of Panama.

Photocorynus spiniceps Regan, Proc. Roy. Soc. Lond., ser. B, XCVII, 1925, 393, figs. 6-7, deep waters off Panama.

Family 308. HIMANTOLOPHIDÆ**Genus 1479. ONEIRODES Lütken.**

Oncirodes Lütken, Overs. Dansk. Vid. Selsk. Kjøbenhavn, 1871, 56 (*O. eschrichtii* Lütken).

4117. Oneirodes eschrichtii Lütken.

Deep sea off Greenland.

Oncirodes eschrichtii Lütken, Overs. Dansk. Vid. Selsk. Forhandl., 1871, 56, 9-18, pl. 2, deep sea off Greenland.

Genus 1480. HIMANTOLOPHUS Reinhardt.

Himantolophus Reinhardt, Dansk. Vid. Selsk. Aft. Kjøbenhavn, VII, 1838, 74 (*H. grænlandicus* Reinhardt).

4118. Himantolophus grænlandicus Reinhardt.

Greenland.

Himantolophus grænlandicus Reinhardt, Dansk. Vid. Selsk. Nat. Math. Aft., 1837, 74, Greenland.

Genus 1481. LOPHODOLUS Lloyd.

Lophodolus Lloyd, Mem. Indian Mus., II, 1909, 167 (*L. indicus* Lloyd).

4119. Lophodolus acanthognathus Regan.

North Atlantic.

Lophodolus acanthognathus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, north Atlantic.

Genus 1482. CORYNOLOPHUS Gill.

Corynolophus Gill, Proc. U. S. Nat. Mus., I, 1878, 219 (*Himantolophus reinhardtii* Lütken).

4120. Corynolophus reinhardtii (Lütken).

Greenland; one specimen known.

Himantolophus reinhardtii Lütken, Kög. Dansk. Vid. Selsk., 1878, 321, Greenland. Perhaps a species of *Himantolophus*.

Genus 1483. DOLOPICHTHYS Garman.

Dolopichthys Garman in Mem. Mus. Comp. Zool., XXIV, 1899, 81, (*D. allector* Garman).

4121. Dolopichthys gracilispinis Regan.

North Atlantic.

Dolopichthys gracilispinis Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, north Atlantic.

4122. Dolopichthys microlophus Regan.

North Atlantic.

Dolopichthys microlophus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, north Atlantic.

4123. Dolopichthys anisacanthus Regan.

North Atlantic.

Dolopichthys anisacanthus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May 1925, 562, north Atlantic.

4124. *Dolopichthys luetkeni* Regan.
Gulf of Panama.
Dolopichthys luetkeni Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 562, Gulf of Panama.
4125. *Dolopichthys heteracanthus* Regan.
Gulf of Panama.
Dolopichthys heteracanthus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, Gulf of Panama.
- Genus 1484. **LASIOGNATHUS** Regan.
Lasiognathus Regan, Ann. Mag. Nat. Hist., 9 ser., XV, 1925, 563 (*L. saccoctoma* Regan).
4126. *Lasiognathus saccoctoma* Regan.
Caribbean Sea.
Lasiognathus saccoctoma Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 563, Caribbean Sea.
- Genus 1485. **LINOPHRYNE** Collett.
Linophryne Collett, Proc. Zool. Soc. Lond., 1886, 138 (*L. lucifer* Collett).
4127. *Linophryne lucifer* Collett.
Open Atlantic.
Linophryne lucifer Collett, Proc. Zool. Soc. Lond., 1886, 138, pl. 15, off Madeira, lat. 36° N., long. 20° W.
4128. *Linophryne polypogon* Regan.
North Atlantic.
Linophryne polypogon Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 565, north Atlantic.
4129. *Linophryne arborifer* Regan.
North Atlantic.
Linophryne arborifer Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 564, north Atlantic.
4130. *Linophryne macrodon* Regan.
Gulf of Panama.
Linophryne macrodon Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1895, 564, Gulf of Panama.
- Genus 1486. **CHÆNOPHRYNE** Regan.
Chænophryne Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 564 (*C. longiceps* Regan).
4131. *Chænophryne longiceps* Regan.
North Atlantic and Gulf of Panama.
Chænophryne longiceps Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 564, north Atlantic.

Family 309. **MELANOCETIDÆ**

- Genus 1487. **MELANOCETUS** Günther.
Melanocetus Günther, Proc. Zool. Soc. Lond., 1864, 301 (*M. johnsoni* Günther).
4132. *Melanocetus polyactis* Regan.
Gulf of Panama.
Melanocetus polyactis Regan, Ann. Mag. Nat. Hist., 9 ser., XV, May, 1925, 565, Gulf of Panama.
4133. *Melanocetus niger* Regan.
Gulf of Panama.
Melanocetus niger Regan, Ann. Mag. Nat. Hist., ser. 9, XV, May, 1925, 565, Gulf of Panama.
- Genus 1488. **LYOCETUS** Günther.
Lyocetus Günther, Challenger Rept., XXII, 1887, 57 (*L. murrayi* Günther).

4134. *Lyocetus murrayi* (Günther).Mid-Atlantic at *Challenger* stations 106 and 348.*Melanocetus (Liocetus) murrayi* Günther, *Challenger* Rept., XXII, 1887, 57, pl. 11, fig. A, mid-Atlantic.**Family 310. CAULOPHRYNIDÆ****Genus 1489. CAULOPHRYNE Goode and Bean.***Caulophryne* Goode and Bean, *Oceanic Ichth.*, 1895, 496 (*Caulophryne jordani* Goode and Bean).**4135. *Caulophryne jordani* Goode and Bean.**

Gulf Stream.

Caulophryne jordani Goode and Bean, *Oceanic Ichth.*, 1895, 496, pl. 21, fig. 409, Gulf Stream off Carolinas in 1,276 fathoms.**Family 311. ACERATHIDÆ****Genus 1490. RHYNCHOCERATIAS Regan.***Rhynchoceratias* Regan, *Ann. Mag. Nat. Hist.*, 9 ser., XV, May, 1925, 566 (*R. brevirostris* Regan).**4136. *Rhynchoceratias leucorhinus* Regan.**

North Atlantic and Gulf of Panama.

Rhynchoceratias leucorhinus Regan, *Ann. Mag. Nat. Hist.*, 9 ser., XV, May, 1925, 566, north Atlantic.**4137. *Rhynchoceratias rostratus* Regan.**

Gulf of Panama.

Rhynchoceratias rostratus Regan, *Ann. Mag. Nat. Hist.*, 9 ser., XV, May, 1925, 567, Gulf of Panama.

INDEX

LIST OF COMMON NAMES OF FISHES OCCURRING IN CHECK LIST

	Page		Page		Page
aberejo	315	anged	40	barracuda	255
aboma de mar	436	angel, black	360	California	255
aboma de rio	442	angelish	22, 358, 361	European	255
aburabo	373	angel shark, California	22	great	255
acedia	231	angel sharks	22	northern	255
achigan grand bouche	297	angler	504	short	255
achigan noir	297, 298	añil	321	barracudas	255
achigan petite bouche	298	antonino	270	barred marlin	263
acoupa	354	aquaji	314	barred pickerel	173
aguaji	314	arctic charr	61	bashaw	155
aguavina	318	arctic flounder	227	basking shark	20
aguá de casta	196, 263	arctic grayling	66	East Indian	18
agujon	196, 197	arctic lake herring	62	basking sharks	20
aku	258	arctic lamprey	10	bass	293, 348
akule	271	arctic lycodes	476	banklick	305
akullikitsok	474	arctic salmon, Ross's	60	bayou	297
Alabama darter	592	arctic sculpin	386	big-mouthed black	297
Alabama shad	43	argentine, sheppy	73	black	298, 317
Alaska blackfish	172	argentine	68	fresh-water	298
Alaska codfish	210	arnillo	328	of the Huron	297
Alaska greenfish	374	arrow-toothed halibut	221	black sea	317
Alaska pollack	209	Athabaska herring	62	blue	298
Alaska sand lance	451	Athabaska minnow	115	brown	298
albacore	260	atinga	502	buffalo	302
West Indies long-finned	260	atkafish	374	calico	305
yellow-finned	260	atka mackerel	374	channel	348
albacores	259	atka mackerels	374	common rock	303
long-finned	260	Atlantic salmon, common	56	cow	297
yellow-finned	260	atule	271	dwarf	298
alekey trout	212	Aubeenaubee darter	291	fresh-water	303
alewife	42	aurora trout	60	gold	298
alewives	41	awa	39, 40	grass	305
alfiler	218			gray	297
alfione	411			green	297, 298
alfonino	295	baicalao	315	gulf sea	318
alfonsin a casta	234	baicalhao sabara	441	hog	298
alfonsin a casta larga	234	bachelor	304, 305	kelp	317
alfonsinas	234	bachelor perch	304	Kentucky black	298
allonghi	260	bagré	151, 157	lake	297, 303, 305
alligatorfish, common	394	bagré capo	188	Lake Erie	305
alligatorfishes	393	bagrés de rio	156	large-finned	304
alligator gar, Cuban	38	Bahama amphioxus	7	largemouth black	297
Mississippi	38	Bahama lancelet	7	little	298
alligator gars	38	bajonado	336	marsh	297
Allison's tuna	266	balao	199	minny	298
allmouth	504	blue-tailed	199	moss	297
alma seca	98	red-tailed	199	mountain	305
amberfish, great	279	balloonfish	501, 502	mud	297, 303
amberjack	279	spotted	502	Oswego	297
American anchovies	47	unspotted	502	pale river	297
American carp	103	bananafish	39	red	348
American eel	77	banded blenny	462	river	297, 298
American hake	214	banded darter	289	rock	297, 298, 317
American perch	281	banded drum	352	rock sea	318
American pike	173	banded larimus	314	round	304
American pike perches	282	banded mackerel	279	sea	317, 348
American saibling	60	banded ruddertish	279	shining	304
American seahorse, com-		banded sunfish	504	silver	305, 307
mon	244	bang	42	slough	297
American shad	42	banklick bass	305	small-mouthed black	298
American smelt	67	banner pompano	276	southern rock	303
American sole	229	barracuda	255	speckled	305
amphioxus, Bahama	7	barb	350	spotted	297, 348
California	7	barbero	362, 363	spotted river	298
anchoa pelada	45	barbero negro	363	stone	308
anchovies	47	barbiers	322	straw	297, 305
American	47	barbu	256	strawberry	302, 305
anchovy, bay	47	barbudo	157, 234, 256	streaked-checked river	298
California	47	barbudos	234, 256	striped	297, 307
fr	48	barfish	305	sun	302
Puerto Rican	51	barndoor skate	25	sunfish	303
striped	48	barracouta	255	swago	298

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
bass, trout.....	298	black cod.....	373	blueback mullet.....	253
white.....	297, 303, 307	black crappie.....	305	blueback salmon.....	55
white lake.....	307	black croaker.....	348	blueback trout.....	61
white sea, of California.....	356	black drum.....	352	of Lake Crescent.....	57
wood.....	298	black-eared pondfish.....	299, 301	blue bass.....	298
yellow.....	297, 298, 307	blackears.....	300	blue bream.....	301
bass hogfish.....	298	blackeyes.....	298	blue-breasted darter.....	290
bass killy.....	176	blackeye sunfish.....	298	blue cat.....	152
bass sunfish.....	303	blackfin.....	126	blue cod.....	374
basses, black.....	297	blackfin of Lake Michigan.....	63	blue darter.....	291
rock.....	303	blackfin snapper.....	326	blue dog.....	13
round.....	304	blackfish.....	112, 267, 317, 424	bluefish.....	280, 293, 317
sea.....	308	Alaska.....	172	California.....	339, 356
bastard halibut.....	223	smooth.....	424	bluefishes.....	280
bastard halibuts.....	222	black fresh-water bass.....	298	bluegill.....	301
bastard margaret.....	329	black grouper.....	312, 314	bluehead sucker.....	104
bastard weakfish.....	355	black groupers.....	312	blue herring.....	42
batfish.....	31, 400, 507	black grunt.....	323, 329	blue Joe.....	301
batfishes.....	506	black guatiwere.....	309	blue Johnny.....	291
baya.....	314	black Harry.....	317	blue-lined minnow.....	132
bay anchovy.....	47	blackhead minnow.....	145	blue-mouthed sunfish.....	301
bay mackerel.....	257	blackhorse.....	102	blue mullet.....	110
bay mare.....	105	black huron.....	297	blue parrotfish.....	432, 434
bay shark.....	15	black jewfish.....	312	blue perch.....	301, 424
bayou bass.....	297	black lamprey, small.....	9	blue pike.....	282
Bear Lake herring, great.....	62	black marlin.....	263	blue runner.....	272
Bear Lake whitefish.....	65	giant.....	263	blue shark, great.....	17
beau gregoire.....	413	black minnow.....	139	small.....	16
becuna.....	255	black moray.....	91, 92	blue smelt, California.....	252
bellowsfish.....	246, 504	black mullet.....	105	blue-spotted sunfish.....	298, 304
bellyfish.....	191	black-nosed dace.....	139, 140	blue-striped triggerfish.....	491
bergall.....	424	black oldwife.....	493	blue sucker.....	146
berg-gyll.....	424	black perch.....	298, 317, 323	blue sunfish.....	293, 301
Bermuda catfish.....	261	black pilot.....	413	blue surgeon.....	362
Bermuda chub.....	340	black rockfish.....	365	blue-tailed balao.....	199
Bermuda lancelet.....	7	black rudderfish.....	268	blue tang.....	362
Bermuda silk snapper.....	326	black rudderfishes.....	267	blunthead.....	176
berrugate.....	324	black ruffe.....	267	blunt-nosed minnow.....	145
besan.....	362	black ruffs.....	267	blunt-nosed river carp.....	103
beshow.....	373	black sculpin.....	387	blunt-nosed shiner.....	275
bessy cerka.....	491	black sea bass.....	317	boar grunt.....	330
besugo.....	337	black-sided darters.....	283	hobo.....	255
biajaiba.....	327	blacksmith.....	413	bob-tailed skate.....	25
biajaiba de lo alto.....	303	black soapfish.....	316	bocaccio.....	364
bielaya ryba.....	54	black spearfish.....	263	boce dulce.....	13
big drum.....	352	black-spotted Spanish mackerel.....	257	bocon.....	48, 51
big-eared sunfish.....	300	black sucker.....	105, 107	bocone.....	354
big-eye.....	322, 323	black sunfish.....	302	bodieron.....	373
big-eyed herring.....	39, 42	black surfish.....	411	boga.....	340
big-eyed scad.....	271	black swallower.....	452	bonaci.....	314
bigeye minnow.....	134	black swallows.....	452	bonaci arara.....	314
big-eyes.....	322	black-tailed sunfish.....	300	bonaci cardenal.....	313
big-headed darter.....	284	black warmouth.....	302	bonaci de Piedra.....	313
big-headed gurnard.....	403	black will.....	317	bonaci gato.....	315
biglip sucker.....	106	black winter sucker.....	109	bone-dog.....	19, 21
bigmouth.....	302	blanco perch.....	298	bone-eater.....	259
bigmouth buffalo.....	102	blanketfish.....	32	bonefish.....	39
big-mouthed black bass.....	297	blanquillo.....	357	bone-jack.....	259
big-mouthed buffalofish.....	102	blanquillos.....	357	bone shark.....	20
big-mouthed cat.....	153	biennies.....	460	bonita of Martinique.....	260
big-mouthed sunfish.....	302	blenny.....	462	bonito.....	258, 259, 279, 281
bigmouth surfish.....	411	banded.....	462	California.....	259
big-nose sunfish.....	299	eel.....	471	oceanic.....	258
big skate of California.....	26	four-banded.....	462	Pacific.....	258
big-toothed redhorse.....	111	seaweed.....	461	bonitos.....	259
billfish.....	36, 196, 197, 242	snake.....	471	bonnethead shark.....	17
billy gar.....	36	spotted snake.....	469	Bonneville whitefish.....	65
bishop ray.....	30	blind catfishes.....	154	bonyfish.....	39, 44
Bissell's herring.....	63	blindfishes, cave.....	194	bonyfishes.....	39
bitterhead.....	115, 305	blindfish, Mammoth Cave.....	195	bony-tail.....	114
black and yellow rock cod.....	369	blindfish, small.....	195	bootleg sucker.....	107
black angel.....	360	blind gobies.....	447	boregat.....	373
black-banded rock cod.....	370	blind goby of Point Loma.....	447	borer.....	8
black-banded sunfish.....	303	blind simon.....	287	borers.....	8
black bass.....	298, 317	bloater.....	63	borlase.....	267
big-mouthed.....	297	of Lake Michigan.....	63	Bose's shanny.....	462
Kentucky.....	298	blot.....	385	Boston mackerel.....	257
largemouth.....	297	bloody sunfish.....	300	botete.....	498
large-mouthed.....	297	blower.....	498	boucanello.....	326
of the Huron.....	297	blowfish.....	499	bout de tabac.....	319
small-mouthed.....	298	hairy.....	499	bowfin.....	38
black basses.....	297	spinyback.....	498	bowfins.....	38
black-belly.....	42	blue-and-green sunfish.....	298	boxfish.....	497
black buffalo.....	102	blue angel.....	361	hairy.....	501
black bullhead.....	154	blueback.....	42, 62	spiny.....	502
black burrfish.....	502			bramble shark.....	22

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
bramble sharks.....	22	bullhead shark.....	10	capitaines.....	425
branch herring.....	42	little.....	22	caranx, yellow.....	273
branch perch.....	302	bullhead sharks.....	10	carbonero.....	271
brassy sculpin.....	386	bullon.....	434	carconetta.....	16
bream..... 115, 298-303, 336,	337	bull redfish.....	348	cardenal.....	295
blue.....	301	bull trout.....	61	cardinalfishes.....	295
calico.....	305	bumper.....	276	cardonniera.....	370
copper-headed.....	301	burbot.....	212	Carolina pompano.....	277
copper-nosed.....	301	burbots.....	212	Carolina robin.....	407
little.....	304	burrfish.....	502	Carolina sea robin.....	407
moremouth.....	302	black.....	502	Carolina whiting.....	350
perchmouth.....	302	burrfishes.....	502	carp.....	103
red-bellied.....	300	burrito..... 333, 334	333	American.....	103
redbreast.....	299	burritos.....	333	blunt-nosed river.....	103
red-eyed.....	303	burro.....	334	common river.....	103
red-headed.....	299	burro blanco.....	333	lake.....	103
red-sided.....	118	burros.....	333	silver.....	103
red-tailed.....	299	butter chub.....	146	carp sucker.....	103
sea.....	265	butterfish..... 267, 277, 309, 467,	468	carp suckers.....	103
spotted.....	299	lemon-yellow.....	309	casabe.....	276
warmouth.....	302	butterflyfishes.....	359	casabes.....	276
yellow.....	302	butterfly ray.....	29	catagnole.....	265
breams, sea.....	265			catalina.....	332
bride perch.....	297	caballa.....	257	catalineta..... 332, 361	361
bridge perch.....	304	caballito del mar.....	244	catalinetas.....	361
bridled minnow.....	135	cabelellero.....	325	catalufa..... 322, 323	323
brier ray.....	25	cabezon..... 344, 382, 487	390	catalufa de lo alto.....	323
brilliant sunfish.....	300	smooth.....	382	catalufas.....	322
bristle herring.....	246	cabezones.....	382	deep-water.....	323
broadbill.....	264	cabezote.....	246	cat, big-mouthed.....	153
broadhead, grubber.....	47, 50	cabra mora.....	310	blue.....	152
broad shad.....	341	cabrilla..... 311, 317	317	brown.....	154
broad soles.....	229	spotted.....	317	channel.....	153
brochet de mer.....	305	cabrilla calamaria.....	314	of the Potomac.....	153
bronze-backer.....	298	cabrilla de astillero.....	314	duckbill.....	36
bronzed centrarchus.....	303	cabrilla de raizero.....	313	eel.....	152
bronze minnow.....	121	cabrilla pinta.....	310	Fulton.....	152
brook lamprey..... 9, 10	10	cabrilla pirita.....	315	great fork-tailed.....	152
brook lampreys.....	10	cabrillas verdes.....	317	long-tailed.....	212
brook minnow.....	140	cachucho.....	328	Mississippi.....	152
brook silverside.....	251	Cæsar.....	331	mud..... 154, 155	155
brook stickleback.....	105	Cæsar grunt.....	330	Russian.....	155
brook sucker.....	105	caffa bota.....	11	Sacramento.....	154
brook trout.....	60	cagon de lo alto.....	328	Schuylkill.....	154
eastern.....	60	caillon.....	43	sea.....	149
of western Oregon to		caillon tassart.....	44	spoonbill.....	36
southern Alaska.....	58	caiman.....	440	stone.....	155
brotnum.....	479	caji.....	325	white..... 152, 153	152
brown bass.....	298	calafate.....	423	willow.....	152
brown buffalo.....	102	calico bass.....	305	yellow..... 153, 155	155
brown cat.....	154	calico bream.....	305	catfish..... 176, 256	256
brown hind.....	305	calico salmon.....	54	sea..... 148, 149	149
brown rock cod.....	369	California amphioxus.....	7	small.....	154
brown rockfish.....	368	California anchovy.....	47	catfishes, blind.....	154
brown trout.....	298	California angel shark.....	22	cave.....	159
brown-winged sea robin.....	407	California barracuda.....	255	rafttop sail.....	147
bubbler.....	352	California bluefish..... 339, 356	356	mailed.....	160
buffalo.....	103	California blue smelt.....	252	sea.....	147
bigmouth.....	102	California bonito.....	259	South American.....	156
black.....	102	California common skate.....	26	cats, channel.....	151
brown.....	102	California dogfish.....	21	stone.....	155
gourdseed.....	102	California flounder.....	226	tailpole.....	155
mongrel.....	102	California garfish.....	196	cat shark.....	14
quillback.....	102	California hagfish.....	8	cat sharks.....	11
razor-backed.....	102	California herring.....	41	cavalla..... 257, 273	273
round.....	102	California jewfish.....	308	cavallas.....	269
smallmouth.....	102	California lancelet.....	7	cave blindfishes.....	194
suckermouth.....	102	California pampano.....	266	cave catfishes.....	159
buffalo bass.....	362	California redfish.....	426	cavefish.....	194
buffalo cod.....	374	California sardine.....	43	Missouri.....	195
buffalo fish, big-mouthed.....	102	California sole.....	222	cagon de playa shark.....	16
common.....	102	California stingray.....	31	céfalo.....	253
redmouth.....	102	California tomcod.....	210	centrarchus, bronzed.....	303
buffalofishes.....	102	California torped.....	27	cernier.....	308
buffalo sculpin.....	381	California whiting.....	350	cero.....	257
buffalo sunfish.....	298	Califaver mullet.....	253	spotted.....	257
bugara.....	412	campbellite.....	304	chagrin.....	18
bugfish.....	44	candil.....	235	chainside.....	301
bullfish.....	497	candlefish.....	66	chain-sided perch.....	301
bullhead..... 385, 390,		cane de mare.....	19	chani.....	40
black.....	154	capelin.....	66	channel bass.....	348
common.....	154	capelins.....	66	channel cat.....	152
prickly.....	382	Cape May goody.....	349	of the Potomac.....	153
Rocky Mountain.....	384	capidoli.....	20	channel cats.....	151
bullhead minnow.....	145	capitain.....	425	chapin..... 406, 497	497

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
chappaul.....	114	coachman.....	320	common weakfish.....	355
characins.....	95	coalfish.....	209, 373	common whitefish.....	65
charioter.....	320	coast-range trout.....	58	compressed redfin.....	126
charrnia ryba.....	172	cobbler.....	175	conejo.....	261
charr, Arctic.....	61	common.....	176	conejos.....	261
Greenland.....	60	cobblerfish.....	274, 277	coney.....	308
Oregon.....	61	cobblerfishes.....	274	conger, sand.....	454
charrs.....	60	Cobessicentic smelt.....	67	conger eel.....	54, 79, 473
chauffe soleil.....	413	cobia.....	281	of California.....	91
Cheney's darter.....	286	cochinito.....	363	conger eels.....	79
Cherna americana.....	312	cochino.....	491	Connecticut River shad.....	42
Cherna criolla.....	311	cocinera.....	272	conner.....	424
Cherna de lo alto.....	310	cocinero.....	272	constantino.....	306
Cherna de vivero.....	312	cocinero dorado.....	272	constantino de las aletas.....	
chicharro.....	271	cock and hen paddle.....	397	prietas.....	306
chickwick.....	355	cockeye pilot.....	413	Copeland's darter.....	285
chicolor.....	261	cockfishes.....	274	copper-headed bream.....	301
chigh.....	113	cocuyo.....	493	copper-nosed bream.....	301
chimeras.....	10, 32	cod, black.....	373	coralfishes.....	359
chimeroids.....	32	blue.....	374	corbineta.....	346
chinook salmon.....	55	buffalo.....	374	corneta.....	245
Chinquapin perch.....	299, 304, 305	cultus.....	374	cornet fishes.....	245
chirivita.....	360	green.....	209	coronado.....	279
chirivitas.....	360	Pacific.....	210	corporal.....	117
chiselmouth.....	112	vachna.....	210	corsair.....	367
chiselmouth jack.....	66	codfish, Alaska.....	210	corvalos.....	351
chiselmouths.....	112	common.....	210	corvina.....	344, 349, 355
chivin.....	117	Greenland.....	210	corvina de las aletas am.....	
chivo.....	344	codfishes.....	209, 210	arillas.....	356
chogset.....	424	codfish shark.....	21	couchu.....	161
chopa.....	339	codling.....	213	couia.....	108
chopa amarilla.....	339	spotted.....	213	Coulter's whitefish.....	65
chopa blanca.....	340	codlincs.....	212	courpata.....	269
chopa spina.....	337	codorniz.....	350	cow bass.....	297
chopper.....	102	cods, cultus.....	374	cowfish.....	31, 497
choupiquel.....	38	cod shark.....	21	cow-nosed ray.....	31
chub.....	63, 64, 109, 115, 117, 137, 297, 302, 340	coelho.....	261	cow pilot.....	415
Bermuda.....	340	coho salmon.....	54	cow shark.....	11
butter.....	146	cojinera.....	272	cow sharks.....	11
Columbia River.....	112	Colorado River squawfish.....	114	crab-eater.....	281
creek.....	117	Colorado River trout.....	57	crab-eaters.....	281
flat-headed.....	136	Columbia River chub.....	112	crabra.....	370
greased.....	146	Columbia River salmon.....	55	Cragin's darter.....	292
Indian.....	137	Columbia River sucker.....	106	Craig fluke.....	228
Kaweah.....	113	Columbia River trout.....	56	crampfish.....	27
lake.....	136	common alligatorfish.....	394	crapet.....	304, 305
millpond.....	297	common American seahorse.....	244	carpet jaune.....	302
mud.....	117, 302	common Atlantic salmon.....	56	crapet mondoux.....	303
nigger.....	146	common buffalofish.....	102	crapet noir.....	303
of the Rio Grande.....	120	common bullhead.....	154	crapet vert.....	303
river.....	137	common cobbler.....	176	crappie.....	304, 305
Sacramento.....	120	common codfish.....	210	black.....	305
Silver.....	117, 137	common dolphin.....	264	pole.....	304
southern.....	297	common eastern stickleback.....	238	timber.....	304
steel-backed.....	146	common flatfish.....	227	white.....	304
Storer's.....	137	common gar pike.....	36	crappies.....	304
chub mackerel.....	258	common gray shark.....	15	cravo.....	216
chub minnow.....	136	common grunt.....	330	crawl-a-bottom.....	107, 111, 283
chub sucker.....	108, 109	common gurnard.....	407	creek chub.....	117
chuchin.....	158	common halfbeak.....	198	creekfish.....	109
chum.....	54	common halibut.....	221	creek sucker.....	109
chuss.....	213	common herring.....	41	creole.....	426
cibi.....	271	common killifish.....	175	creolefish.....	320
cibi amarilla.....	272	common lake herring.....	63	crested gobies.....	438
cibi mancho.....	271	common mackerel.....	257	crevallé.....	272, 273
cigarfish.....	270	common mullet.....	253	horse.....	273
cirrostomes.....	7	common pampano.....	277	crimson darter.....	294
cisco, Lake Michigan.....	63	common pipefish.....	242	croaker.....	349, 352
mooneye.....	64	common rat-tail.....	205	black.....	348
of Green Lake.....	64	common redhorse.....	110	white.....	353
of Lake Bonneville.....	63	common river carp.....	163	yellow-tailed.....	350
of Lake Michigan.....	61	common rock bass.....	303	croakers.....	344
of Lake Ontario.....	63	common sawfish.....	23	cuatro ojos.....	194
of Lake Superior.....	63	common sculpin.....	386	cub.....	424
of Lake Tippecanoe.....	62	common scup.....	336	Cuban alligator gar.....	38
ciscoes.....	61	common shad.....	42	cuben.....	325
civetta de Mer.....	409	common skate.....	25, 26	Cub shark.....	15
clamagore.....	434	common spotted moray.....	91	cuckold.....	497
clam-cracker.....	28	common stickleback.....	237	cucumberfish.....	502
clear-nosed skate.....	25	common sturgeon.....	34	cucuyo.....	491
clear ray.....	25	common sucker.....	105	cultus cod.....	374
clingfishes.....	488	common sunfish.....	300, 302	cultus cods.....	374
cling goby.....	446	common surgeon.....	362	Cumberland darter.....	293
cloudy lycodes.....	475	common swordfish.....	264	cumprida.....	234
		common trunkfish.....	497	cunner.....	424

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
cunners.....	424	dogfish.....	13, 19, 21, 174, 176	eels.....	54, 77
cusk.....	213, 214	California.....	21	conger.....	79
European.....	214	horned.....	19	cusk.....	485
rock.....	385	picked.....	19, 21	duckbill.....	82
cusk eels.....	485	smooth.....	13	long-necked.....	77
cutlassfish.....	262	spiny.....	21	ooze.....	78
cutlassfishes.....	262	dogfishes.....	21	snake.....	84
cut-lips.....	112, 146	dog salmon.....	54	snipe.....	83
cut-throat trout.....	56	dog shark.....	13	snub-nosed.....	78
of Utah Lake.....	56	dog snapper.....	325	spiny.....	75
cybium, spotted.....	257	dollardee.....	301	sybranchoid.....	76
		dollarfish.....	267, 275	thread.....	83
dab.....	222	dollfish.....	300	true.....	77
sand.....	222	Dolly Varden.....	305	worm.....	82
smear.....	228	Dolly Varden trout.....	61	eighteen-spined sculpin.....	386
dabs, mud.....	226	dolphin, common.....	264	eight-threaded threadfish.....	256
smear.....	228	small.....	265	electricfish.....	27
dace.....	115, 117, 128, 140	dolphins.....	264	electric rays.....	27
black-nosed.....	139, 140	domine.....	261	elephantfish.....	33
horned.....	117	doncella.....	426	elephantfishes.....	32
long-nosed.....	139	doncellas.....	426	elephant shark.....	20
red-bellied.....	113	dorado.....	264	ollwife.....	42
rosy.....	121	dorados.....	264	emeraldfish.....	441
striped.....	140	dormeur.....	323	emerald minnow.....	123
daces.....	112	dory.....	282	emerald trout.....	58
daddy sculpin.....	387	hair-finned.....	275	emerande.....	441
daddy sculpins.....	386	ocellated.....	232	endormi.....	441
darter, Alabama.....	292	spinous.....	276	enjambré.....	308
Aubenaubee.....	291	dotted paintedtail.....	297	entemedor.....	27
banded.....	289	dotted sand.....	270	Erie great herring.....	63
big-headed.....	284	double-bearded flyingfish.....	291	Erie herring.....	64
black-sided.....	283	doughbelly.....	146	crizo.....	501
blue.....	291	dourado.....	264	escolar.....	261
blue-breasted.....	290	dovetailfish.....	415	escolar chino.....	297, 328
Cheney's.....	286	dragonets.....	139	escolar de natura.....	269
Copeland's.....	285	drum.....	163, 352	escolares.....	290, 261
Cragin's.....	292	banded.....	352	escribano.....	198, 199
crimson.....	294	lac.....	352	esmeralda.....	441
Cumberland.....	293	black.....	352	esmeralda de mar.....	437
Evermann's.....	284	fresh-water.....	352	esmeralda negra.....	437
fan-tailed.....	263	gray.....	352	españa.....	264
fan-form.....	294	red.....	348	espadon emperador.....	264
Gilbert's.....	286	drumfish.....	352	enlachen.....	66
Grand Granchae.....	287	drummer, jewsharp.....	351	European barracuda.....	255
green-sided.....	286	mongolar.....	355	European cusk.....	214
Günther's.....	283	whitemouth.....	349	European hake.....	214
Jessie's.....	291	drums, red.....	348	European sculpin.....	386
Johnny.....	287	river.....	352	Everglades pigmy sunfish.....	305
Jordan's.....	290	sea.....	352	Evermann's darter.....	284
Julia's.....	292	drunkenfish.....	496	Evermann's trout.....	59
least.....	294	Dublin Pond trout.....	60		
manitou.....	283	duckbill cat.....	36	faguito.....	191
Maryland.....	284	duckbill eels.....	82	fair maid.....	336
Maximukiee.....	284	duckbill shark.....	16	fallfish.....	117
Mcadams.....	286	dwarf bass.....	298	red.....	127
Nanaim.....	285			fallfishes.....	117
northern.....	291	Eagle Lake trout.....	58	fall herring.....	42
onachita.....	284	eagle rays.....	30, 31	fanegai.....	370
Putnam's.....	285	cared sunfish.....	300	fantail darters.....	293
rainbow.....	291	Eastern mackerel.....	258	fan-tailed darters.....	293
sand.....	287, 288	eastern brook trout.....	60	fantail mullet.....	253, 254
shielded.....	283	eastern mud minnow.....	174	fatback.....	44, 280
Shumard's.....	285	eastern pickerel.....	173	fathead.....	426
Shum's.....	288	eastern rehorse.....	111	fathead minnow.....	145
to-ellated.....	287	eastern stickleback, com- mon.....	288	fatheads.....	145, 426
to-ellated.....	290	East Indian backing bark eel.....	18	fatherlasher.....	386
Whipple's.....	292	American.....	77	fat priest.....	373
darter.....	282	conger.....	54, 79, 473	fat priests.....	373
black-sided.....	283	of California.....	91	female perch.....	302
fantail.....	293	fresh-water.....	77	fiatolas.....	266
and.....	289	lampier.....	473	fiddlefish.....	22
to-ellated.....	287	lamprey.....	8	fiddler.....	152
deadfish.....	216	moray.....	8	fiddlerfish.....	23
deceptive sunfish.....	299	and.....	451, 485	filefish.....	491, 494, 495
deep-water catalufes.....	323	sea.....	88	orange.....	495
demonio.....	115	snipe.....	83	thread.....	494
dendro.....	19	whip snake.....	88	filefishes.....	193
dentfish.....	28, 32	wolf.....	472	fine-scaled mullet.....	105
snail.....	32	old-back flounder.....	227	fine-scaled sucker.....	105
chub.....	307	eel blenny.....	471	fishes, bony.....	39
chub and flounder.....	225	eel cat.....	152	soft-rayed.....	39
chuckfish.....	362	eel pout.....	212, 473	true.....	33
dog, blue.....	13			fishng-frog.....	504
				fishng-frog.....	504

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
fish of Dismal Swamp.....	194	gabilan.....	31	golet.....	61
fish of the rice ditches of		gafftopsail.....	148, 276	goodies.....	348
South Atlantic States.....	194	gafftopsail catfishes.....	147	goody.....	349
fish shark.....	18	galafate.....	493	Cape May.....	349
five-bearded rockling.....	208	gall bengal.....	424	goosefish.....	504
five-bearded rocklings.....	208	gallwasp.....	163	gorbuscha.....	54
flamenco.....	326	gar.....	195	goujon.....	155
flannel-mouthed sucker.....	107	billy.....	36	gourami.....	314
flapmingo.....	494	Cuban alligator.....	38	gourdseed buffalo.....	102
flasher.....	323	green.....	196	gourdseed sucker.....	102
flashers.....	323	long-nosed.....	36	grande écaille.....	39
flatfish.....	299, 302, 360	Mississippi alligator.....	38	Grand Oranchee darter.....	287
common.....	227	Ohio.....	36	grass bass.....	305
flatfishes.....	217	salt-water.....	196	grass pike.....	173
flat-headed chub.....	136	silver.....	196	grass porgy.....	337
flesh-colored rock cod.....	369	silvery.....	196	grass rockfish.....	369
fler.....	304	garfish.....	196	grassy ground rockfish.....	320
floma.....	365	California.....	196	grayback.....	63
Florida lancelet.....	7	Ohio.....	36	gray bass.....	297
Florida sailfish.....	263	garibaldi.....	415	gray drum.....	352
flounder.....	299, 302	garibaldis.....	415	gray grunt.....	329
arctic.....	227	garlopa.....	314	grayling, arctic.....	66
California.....	225	gar pike, common.....	36	Michigan.....	66
diamond.....	225	gar pikes.....	36	Montana.....	66
eel-back.....	227	garrupa.....	365	graylings.....	65
four-spotted.....	224	garrupas.....	308	gray pike.....	282
gulf.....	224	gars, alligator.....	37	gray shark.....	15
lemon-yellow.....	227	short-nosed.....	37	common.....	15
peacock.....	217	gascon.....	270	gray sharks.....	13
pole.....	223	gaspereau.....	42	gray snapper.....	325
southern.....	224	gaspergou.....	352	gray sole.....	228
summer.....	224	gata.....	12	gray sucker.....	106
winter.....	227	gato.....	13	gray trout.....	355
flounders.....	217	genizara.....	426	greased chub.....	146
great.....	225	Georgian Bay herring.....	62	great amberfish.....	279
starry.....	225	ghostfish.....	471	great barracuda.....	255
winter.....	227	ghost smelt.....	68	great Bear Lake herring.....	62
fluke.....	224	ghost smelts.....	68	great blue shark.....	17
Craig.....	228	giant black marlin.....	263	great flounders.....	226
flutemouth.....	245	Gila trout.....	114	great flyingfish.....	202
flyfish.....	367	Gilbert's darter.....	286	great fork-tailed cat.....	152
flyingfish.....	231, 407	gilded sunfish.....	301	great herring, Erie.....	63
double-bearded.....	201	gizzard shad.....	46	Great Lakes trout.....	59
great.....	202	gizzard shads.....	46	great northern pike.....	173
sharp-finned.....	200	glancefish.....	216	great pampano.....	272
single-bearded.....	201	glass-eye.....	282	great pike.....	177
flyingfishes.....	199, 200	glassfish.....	251	great pipefish.....	240
flying gurnard.....	409	globefish.....	503	great sculpin.....	387
flying gurnards.....	403	glovefish.....	499	great sea lamprey.....	8
flying perch.....	304	glut herring.....	42	great torpedo.....	27
flying robin.....	409	goatfish.....	343	great trout of Lake Tahoe.....	57
foolfish.....	491, 495	red.....	343	great tunnies.....	259
fork-beard.....	213	yellow.....	343	great white sharks.....	20
four-banded blenny.....	462	goatfishes.....	343	greenback trout.....	57
four-bearded rockling.....	209	gobies.....	438	green bass.....	297, 298
four-bearded rocklings.....	209	blind.....	447	green cod.....	209
four-eyed fish.....	194	crested.....	438	greenfish.....	280, 339
four-eyed fishes.....	194	half-naked.....	445	Alaska.....	374
four-spined stickleback.....	239	goby.....	446	green gar.....	196
four-spotted flounder.....	224	blind, of Point Loma.....	447	green jack.....	271
fox shark.....	18	clinging.....	446	green lamprey.....	8
Fraser River salmon.....	55	long-jawed.....	444	Greenland charr.....	60
French grunt.....	330	naked.....	444	Greenland codfish.....	210
frère jacques.....	235	sharp-tailed.....	441	Greenland halibut.....	221
fresh-water bass.....	303	variegated.....	446	greenling.....	374
black.....	298	gog.....	314	greenlings.....	373
fresh-water drum.....	352	goggle-eye.....	302-305	green parrot fish.....	432, 435
fresh-water eel.....	77	goggle-eye jack.....	271	green perch.....	297, 298
fresh-water shark.....	16	goggler.....	271	green pike.....	173
fresh-water silverside.....	247	gold bass.....	298	green pipefish.....	242
fresh-water sunfish.....	299	golden angel.....	361	green-sided darter.....	286
fresh-water trout.....	297	golden trout of south fork		green sturgeon.....	34
friar.....	247	of Kern River.....	59	green sunfish.....	298
friars.....	246	golden trout of Sunapee		small.....	300
frigate mackerel.....	259	Lake.....	60	green trout.....	27, 298
frogfishes.....	504	golden trout of Volcano		grenadier.....	207
frostfish.....	210	Creek.....	59	grenandiers.....	202
frostfishes.....	262	golden trout of western		ground drummer.....	346
fry, anchovy.....	48	tributaries of Kern River.....	59	ground rockfish, grassy.....	320
hogmouth.....	48	goldeye.....	41	ground spearing.....	163
tarpon.....	51	goldeyes.....	41	grouper.....	311
fucinita.....	295	goldfish, sea.....	415	black.....	312, 314
Fulton cat.....	152	gold perch.....	301	Nassau.....	311
funal.....	370	gold perch.....	304	poison.....	370, 371
fusiform darter.....	294	goldthread shiner.....	116	red.....	312

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
grouper, snowy	311	hairy boxfish	501	herrings, lake	41, 61
spotted.....	311	hairy porcupinefish	501	round.....	45
yellow.....	314	hake	213, 350	hickory jack	42
yellow-finned.....	311, 313	American.....	214	hickory shad	42, 46
groupers	308, 310	European.....	214	hind, brown	308
black.....	312	New England.....	214	red.....	312
growler	297	Old English.....	213	rock.....	308, 310
salmon-formed.....	297	Old England.....	214	speckled.....	312
grubber broadhead	47, 50	red	213	hitch	113
grubby	386	silver.....	214	hoe.....	19
grunion	251	spotted.....	213	hoe-mother.....	20
grunt, black	323, 329	squirrel.....	213	hog bass	298
boar.....	330	white.....	213	hogchoker	229
Casar.....	330	hakes	214	hogfish	283, 318, 335, 425
common.....	330	halfbeak, common.....	198	bass.....	425
French.....	330	slender.....	198	Spanish.....	425
gray.....	329	halfbeaks	198	hogmolly	107, 283
humpback.....	330	halfmoon.....	358	hogmouth fry	48
margaret.....	329	halfmoonfishes.....	358	hog sucker	107
open-mouthed.....	330	half-naked gobies.....	445	Holbrook's top minnow	185
redmouth.....	331	half-naked lycodes.....	475	holia	54
red-mouthed.....	335	halibut	221	hoopid salmon	54
striped.....	329, 332	arrow-toothed.....	221	hoosier.....	155
white.....	331	bastard.....	223	horned dace	117
yellow.....	330	common.....	221	horned dogfish	19
young.....	331	Greenland.....	221	horned-eared sunfish	299
grunts	329	Monterey.....	223	horned pout	153, 154
striped.....	331	halibuts	221	horned pouts	151
guabin, small	180	bastard.....	222	horned trunkfish	497
guacamain	135	hamlet	91, 311	horny cony	494
guaguanché pelon	255	hammerhead.....	18, 107	hornyhead	137
guajacón	185	hammerhead shark.....	18	horse crevallé	273
guajacónes	181	hammerheaded sharks.....	17	horse-eyed jack	271
guajica	191	handsawfish	171	horse-eye jack	272
guanunche	255	handsawfishes.....	171	horsefish	244, 275
guapena	473	hannahill.....	317	horsehead	275
guardfish	146	harder	268	horse mackerel	270, 280
guarubaco	136	hardhead	150, 349	hound, smooth	13
guasa	310, 312	hardheads	150, 246	houndfish	196, 197
guasas	312	hardmouth	112	houndfishes	195
guatiere	309	hard-mouthed suckers	105	humpback grunt	330
black.....	309	hardtail	272	humpback salmon	54
red.....	309	harelip sucker	112	humpback sucker	108
guatiere amarilla	309	harlequin roach	302	humpback whitefish	65
guavina	354, 435, 436, 437	harvestfish	266, 267	huron	297
guavina hoyera	442	harvest pike	196	black.....	297
gudgeon	115, 132, 143	bayko	54	icefish	67
Niagara.....	139	headfish	503	inconnu	61
gudlar	216	headfishes	503	Indian chub	137
guitarfish	24	hechudo	50	Indianfish	302, 360
guitarfishes	23	hedgohog ray	25	Indian remora	448
guitarro	23, 24	hemdurgan	363	Irish lord	381
gulf flounder	224	herring, arctic lake	62	Irish pompano	342
gulf menhaden	44	Athabaska.....	62	isabelita	361
gulf sea bass	318	big-eyed.....	42	isabelita de la alto	360
gulpers	95	Bissell's.....	63	iverksoak	212
gunnel	467	blue.....	42	jabon	316
Günther's darter	283	branch.....	42	jaboncillo	316
guppy	191	bristle.....	246	jack	173, 273, 364
gurnard, big-headed	408	California.....	41	chiselmouth.....	66
common.....	407	common.....	41	goggle-eye.....	271
flying.....	409	common lake.....	63	green.....	42
northern striped.....	407	Erie.....	63	hickory.....	271
red-winged.....	407	Erie great.....	63	horse-eye.....	272
southern striped.....	407	fall.....	42	horse-eyed.....	271
spinous.....	407	Georgian Bay.....	62	yellow.....	272
gurnards	407	glut.....	62	jackfish	279
flying.....	408	great Bear Lake.....	62	jack salmon	282
hackleback	35	jumbo.....	63	jacome	319
hacklehead	386	king of the.....	216	jallao	329
haddo	54	lake.....	63	janissary	426
haddock	211	Lake Huron.....	62	jaqueta	415
Jerusalem.....	216	least lake.....	62	jawfishes	452
Norway.....	363	Mackenzie River.....	62	jeniguana	330
hagfish	8	Michigan.....	62	jeniguano	331
California.....	8	rainbow.....	67	Jenny Lind	279
hagfish	8	Rawson Lake.....	46	jerker	137
hag-finned dory	275	round.....	46	Jerusalem haddock	216
hag-finned silverfish	275	Saginaw Bay.....	62	Jessie's darter	291
hairtail	262	Seneca Lake.....	41	jewish, black	312
silvery.....	262	southern toothed.....	42	California.....	308
hairtails	262	summer.....	42	spotted.....	312
hairy blowfish	469	tailor.....	42	jew fishes.....	308
		thread.....	44	jewish sharp drummer	351
		toothed.....	40		
		wali-eyed.....	42		

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
jiguagña	273	lake herrings	61	lisa blanca	253
jocú	325	Lake Huron herring	62	lisa cabezuda	253
John A. Grindle	38	lake lamprey	9	lisa francesca	39
John demon	301	lake lawyer	212	lisita	254
John dories	232	Lake Michigan cisco	63	little bass	298
John Mariggle	39	lake minnow	123, 137	little bream	304
John paw	312	lake perch	281	little bullhead shark	22
Johnny	390	lake sculpin	389	littlehead porgy	236
Johnny darter	287	lake sheephead	352	little killifish	175
Johnny verde	317	lake sturgeon	35	littlemouth porgy	337
jolt-head porgy	336	Lake Superior whitefish	67	little pickerel	173
jopatan	335	Lake Tahoe trout	57	little red-eye	298
Jordan's darter	290	lamia	15	little roncador	249
Jordan's trout	57	lamper eel	473	little skate	25
jorobado	275	lamperina	8	little smelt	252
joturo	254	lamprey, arctic	10	little stargazer	385
jugfish	497	brook	9, 10	little sunfish	304
jugmouth	302	great sea	8	little tunny	258
Julia's darter	292	green	8	liza	253
jumbo herring	63	lake	9	liza ojo de perdiz	254
jumper	297, 298	Mexican	9	lizardfish	163
jumping mullet	111	mud	9	lizardfishes	163
jumprocks	111	river	8	lodde	66
June sucker	108	shad	8	logfish	268
jurel	272, 278	silver	9	log perch	283
		small black	9	log perches	282
kale	363	three-toothed	10	long-eared sunfish	299, 300
kálog	387	western	10	long-finned albacore, West	
Kamchatka salmon trout	56	lamprey eel	8	Indies	260
Kamloops trout	58	lampreys	8	long-finned albacores	260
kawakawa	259	brook	10	long-finned sole	228
kaweah chub	113	river	9	long-finned sunfish	304
kelp bass	317	lancelet, Bahama	7	long-headed trout of Cres-	
kelpfish	427, 458	Bermuda	7	cent Lake	57
spotted	458	California	7	longjaw	196
Kennicott's whitefish	65	Florida	7	Ontario	63
Kentucky black bass	298	Virginia	7	of Lake Superior	64
Kern River trout	58	West Indian	7	long-jawed goby	444
kete	500	lancelets	7	longjaws	195
killie	176	lancefish	171, 362	ong mingo	495
killifish	176, 181	landlocked salmon	56	long-mouthed minnow	121
common	175	Lane snapper	527	long-necked eels	77
little	175	langbarn	470	long-nosed dace	139
killifishes	174	lunt	451	long-nosed gar	36
killy	176	lanternfishes	160, 169	long-nosed sucker	106
bass	176	lapon	371	long-sealed sunfish	500
kingfish	257, 319, 350	la quesche	41	long-spined sculpin	886
kingfishes	350	large-finned bass	304	long-tailed cat	212
king mullet	343	largemouth black bass	297	long-tailed stingray	31
king of the herring	216	large-mouthed black bass	297	longtail shark	18
king of the mackerels	504	large-sealed sucker	110	longue	59
king of the mullets	295	larimus, banded	344	lookdown	275
king of the salmon	216	Lauretta whitefish	42	loro	434, 435
king salmon	55	lavarets	64	Lost River sucker	108
kingston	22	lawyer	18, 225	loulou	496
kisutch	54	lake	212	Lower California trout	59
kil	28	leaping tuna	259	lucky proach	586
kiver	299, 302	least darter	294	lumpfish	597
klyi	64	least lake herring	62	spinous	398
Kodiak smelt	67	leathercoat	277	lump sucker	399
krashnaya ryba	55	leather-ear	299	lycodes, arctic	476
kuroka	263	leatherfish	494	cloudy	475
kurokajiki	263	leatherjacket	277, 491	half-naked	475
kweewee	108	plain	277	spotted	474
kyack	42	leatherjackets	277	Vahl's	474
		leather-sided minnow	119		
Labrador whitefish	64	leatherwing	299	macabi	39
Lac de Mabre trout	61	lebisia	23	macho	153
laccin	129	lebranco	253	machuelo	44
lacroto	163	le kai salmon	54	machuto	253
ladyfish	39, 425	lemonfin	120	Mackenzie River herring	62
Spanish	425	lemon sole	228	mackerel, Atka	374
ladyfishes	39	lemon-yellow butterfish	309	banded	279
lady ray	30	lemon-yellow flounder	22	bay	257
lafayette	267, 349	leopard shark	14	black-spotted Spanish	257
lagarto	163	licorne de Mer	397	Boston	257
lake bass	297, 303, 305	lija	494, 495	chub	258
white	307	lija barbuda	496	common	257
lake carp	103	lija colorada	494	Easter	558
lake chub	136	lija trompa	495	frigate	259
Lake Erie bass	305	lined sea robin	407	horse	270, 280
Lake Erie whitefish	65	ling	212, 213, 374, 473	Monterey Spanish	257
Lake herring	63	thumb-eyed	213	skip	280
arctic	62	lings	212	snake	260
common	63	lionfish	371	snap	280
least	62	lisa	253	snapping	280

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
mackerel, Spanish.....	257	menhaden.....	44	Mississippi cat.....	152
of England.....	258	gulf.....	44	Missouri cavefish.....	195
spotted.....	257	short-tailed.....	44	Missouri sucker.....	102
thimble-eyed.....	258	menhadens.....	44	missuckee-kequoock.....	307
tinker.....	258	Menominee whitefish.....	65	mojarra.....	343, 416
yellow.....	272, 273	méro.....	312	Mexican.....	343
mackerel midge.....	208	merco de lo alto.....	312	mojarra almejero.....	329
mackerel porbeagle.....	19	mérout.....	310, 364	mojarra blanca.....	341
mackerel scad.....	270	metolote.....	103	mojarra cantilena.....	341
mackerel scads.....	270	Mexican lamprey.....	9	mojarra cardinal.....	236
mackerel shark.....	19	Mexican mojarra.....	343	mojarra china.....	342
mackerel sharks.....	19	Mexican sailfish.....	263	mojarra de Casta.....	341
mackerels, Atka.....	374	Mexican snapper.....	326	mojarra de las aletas anaril-	
king of the.....	304	Mexican sole.....	330	las.....	342
snake.....	261	mhor.....	18	mojarra de las piedras.....	361
Mackinaw trout.....	59	Michigan grayling.....	66	mojarra de ley.....	341
mademoiselle.....	245	Michigan herring.....	62	mojarra dorada.....	273
mademoiselles.....	245	midshipman.....	487	mojarra garabata.....	337
madreazal.....	279, 280	midshipmen.....	487	mojarra negra.....	416
mad tom.....	156	milkfish.....	40	mojarra plateada.....	416
mud toms.....	155	milkfishes.....	40	mojarra prieta.....	330
mahogany snapper.....	327	millar's thumb.....	385	mojarra raiado.....	415
maid.....	29	northern.....	386	mojarra verde.....	419
mailed catfishes.....	160	southern.....	385	mojarras.....	340
maire d'Amplora.....	166	millar's thumbs.....	383	mojarras blancas.....	341
makajiki.....	264	millions.....	191	mojarras de rio.....	416
maki-maki.....	300	millpond chub.....	297	mojarritas.....	340
Malma trout.....	61	millpond flier.....	305	mojarron.....	332
malolo.....	199	millpond perch.....	304	mola.....	503
Mammoth Cave blindfish.....	195	mingo.....	494	monda.....	278
mummy.....	146	minnie.....	133, 135	mongol drummer.....	355
man-eaters.....	19	minnow.....	116, 121, 133, 175	mongrel buffalo.....	102
man-eater sharks.....	20	Athabaska.....	115	moonkeyfish.....	22
mangrove minnow.....	175	bigeye.....	134	monkfish.....	22, 304
mangrove snapper.....	313, 325	black.....	139	Montana grayling.....	46
Manitoba whitefish.....	64	bluehead.....	145	Monterey halibut.....	223
Manitou darter.....	283	blue-lined.....	142	Monterey roach.....	122
Manitoulin tullibee.....	64	blunt-nosed.....	145	Monterey Spanish mack-	
manjua.....	48	bridled.....	135	erel.....	257
manjuari.....	38	bronze.....	121	moo-gad-ee.....	167
manjuda.....	248	brook.....	140	mooneye.....	40, 61
man-of-war fish, Portuguese.....	268	bullhead.....	145	southern.....	41
man-of-war fishes.....	268	chub.....	136	mooneye cisco.....	64
manta.....	32	eastern mud.....	174	mooneyes.....	40
manta rain.....	29	emerald.....	123	moonfish.....	193, 216, 275, 358
manta rain colorado.....	29	fathead.....	145	moonfishes.....	275
many-spined sunfish.....	304	Holbrook's top.....	185	moorish idol.....	362
mapiro.....	436	lake.....	123, 137	moorish idols.....	362
mapos.....	440	leather-sided.....	119	Moose Lake minnow.....	136
marbled rockfish.....	314	long-mouthed.....	121	moray, black.....	91, 92
marblefish.....	503	mangrove.....	175	common spotted.....	91
margaret grunt.....	229	Moose Lake.....	136	spotted.....	93
margatefish.....	229	mud.....	174	moray eel.....	93
maria molle.....	413	northern straw-colored.....	134	morays.....	90, 91
marian.....	236	pearl.....	116	moremouth bream.....	302
maria prieta.....	332	pike.....	175	morena pinta.....	90
mariposa.....	216	pin.....	109	morena pintita.....	92
marlin, barred.....	264	plumbeus.....	136	morena verde.....	92
black.....	263	pursy.....	181	mosquitofish.....	185
giant black.....	263	river.....	176	moss bass.....	297
striped.....	263	rosy.....	123	mossbunker.....	44
marlinpikefish.....	263	rosy-faced.....	224	mother-of-eels.....	473
marlinpikefishes.....	263	rotgut.....	146	mountain bass.....	305
marsh bass.....	297	sheep-head.....	181	mountain mullet.....	254
Marston trout.....	61	silver-mouthed.....	342	mountain mullets.....	254
Martin pender.....	246	silvery.....	132, 143	mountain sucker.....	104
Maryland darter.....	284	smelt.....	143	mountain suckers.....	104, 105
masamacush.....	59	spot-tailed.....	132	mountain trout.....	298
maskinongy.....	172	spotted.....	145	mousefish.....	504
matajuelo.....	235	spotted-tail.....	129	mud bass.....	297, 303
matajuelo blanco.....	256	star-headed.....	178	mud blower.....	212
matajuelo real.....	39	steel-colored.....	129	mud cat.....	154, 155
matajuelos.....	356	straw-colored.....	133, 134	mud chub.....	117, 302
mattowacca.....	42	striped mud.....	174	mud creeper.....	446
Maxinkuckee darter.....	284	sucker-mouthed.....	142	muddabber.....	175
Mayfish.....	176	top.....	177, 178, 185	mud dabs.....	226
May sucker.....	112	variegated.....	181	mudfish.....	38, 192, 434
Mazama.....	263	minnows.....	112	mud lamprey.....	9
McCloud River rainbow		mud.....	174	mud minnow.....	174, 175
trout.....	58	silvery.....	123	eastern.....	174
Meadie's darter.....	286	top.....	184	striped.....	174
medialuna.....	358	minny bass.....	298	mud minnows.....	174
medium red salmon.....	54	misarkornak.....	474	mud parrot.....	433
		mischuppauog.....	336	mud perch.....	215, 303
		Mississippi alligator gar.....	38	mud sucker.....	107

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
mud sunfish	303	obispo	30	parrotfish	431, 433, 434
mufflejaw	385	oceanic bonito	258	blue	432
mufflejaws	385	ocean pipefish	243	green	432, 435
muikichi	56	ocean sunfish	503	red	432
mullet	109, 110, 111	ocean tang	363	paru	360
black	105	ocean turbot	492	pascadillos del rey	252
blue	110	ocellated dory	232	pastor	268
blueback	253	ogac	210	patao	342
Callifaver	253	Ohio gar	36	peacockfishes	280
common	253	Ohio garfish	36	peacock flounder	217
fantail	253, 254	Ohio shad	42	pealip sucker	112
fine-scaled	105	Ohio sturgeon	35	pearlfish	486
jumping	111	ohua	495	pearl minnow	116
king	343	oilfish	20, 261	pearlsides	73
mountain	254	oil shark	14	peche-peche	99
of Utah Lake	105	oianco	327	pêche prêtre	365
red	111, 343	old England hake	214	peck-nosed skate	25
redeye	254	old English hake	213	pega	445, 449
sea	350	old wench	491	pegador	448
snipnose	268	oldwife	276, 349, 434, 491	peixe agulha	195
striped	253	black	493	peixe carago	12
trench	253	oilpepa	495	peixe fonda	331
whirligig	253	omilu	273	peixe rey	246, 252
white	109, 253	ono	256	pélérin	20
mullet	252	Ontario longjaw	63	Pensacola snapper	326
king of the	295	oolachan	66	pepesca	248
mountain	254	oopu	440	perch	297-302, 304, 409
striped	252	ooze eels	78	American	281
white	253	opah	216	backelor	304
mummichog	175, 176, 181	open-mouthed grunt	330	black	298, 317, 323
muñeca	360	Oquassa trout	61	blanco	298
muñelago	409	orange filefish	495	blue	301, 424
muscalonge	172	orange rockfish	365	branch	302
muskallunge	172	orange-spotted sunfish	300	bride	297
muskellunge	172	Oregon charr	61	bridge	304
Musquaw River whitefish	64	Oregon sturgeon	34	chain-sided	301
muttonfish	326, 342, 473	orielle noire	326	chinquapin	299, 304, 305
mykiss	56	orqueta	276	female	302
naccaysh	41	Oswego bass	297	flying	304
naillrod	42	ouachita darter	284	gold	301
naked goby	446	ouananiche	56	green	297, 298
namaycush	59	ouatilibi	309	lake	281
namaycush salmon	59	ouatilibi espagnol	308	log	283
Nassau grouper	311	ovate pampano	276	millpond	304
Navarro roach	121	oysterfish	424, 446, 487	mud	215, 303
needlefish	195, 196	Pacific bonito	258	pike	282
needlefishes	195	Pacific cod	210	pirate	215
nee-kaio-kaiung	382	Pacific salmon	54	pond	302
negre	312	Pacific volador	263	raccoon	281
negrofish	309	paddle	397	red	299, 300
nejorpallujak	214	paddlefish	36	red-bellied robin	299
Nelson's trout	59	paddlefishes	36	redeye	303
Nelson's whitefish	65	paintedtail	297	ringed	281
nerka	55	dotted	297	river	281
New England hake	214	pajarito	198	robin	302
Newfoundland shark	14	pale crappie	304	Sacramento	303
newlight	304	pale river bass	297	sand	302, 305
Niagara gudgeon	139	palometa	267, 276, 277	sea	307
Niangua darter	285	pampanito	276	silver	304, 305, 307, 340, 345
nibbler	424	pampano	274, 276, 277	speckled	304
nigger chub	146	California	266	spotted	305
nigger dick	146	common	277	strawberry	304
niggerfish	146, 309	great	277	Suckley	304
niggerhead	107	round	276, 277	sun	299, 300, 303, 305
nigro-ne	16	ovate	276	tin	304
nine-eyes	8	pampanos	269, 276	trout	214, 215, 298
nine-lined shanny	462	paneca	436	viviparous	409
nine-spined sticklebacks	238, 239	papagallo	280	warmouth	302
nissue trout	58	papagallos	280	white	301, 305, 307, 352, 410
northern barracuda	255	papermouth	304	yawmouth	302
northern darter	291	parché	359, 360	yellow	281, 298, 299
northern miller's thumb	386	pargo	324, 326	perchmouth bream	302
northern pomotis	302	pargo amarillo	326	perches	281
northern roach	122	pargo colorado	326, 337	American pike	282
northern straw-colored minnow	134	pargo criollo	326	log	282
northern striped gurnard	407	pargo de lo alto	326	river	281
northern sucker	106	pargo de raizero	327	viviparous	409
northern whiting	350	pargo guachenarigo	326	permit	276, 277
North River shad	42	pargo moreno	325	perrico	435
Norway haddock	363	pargo negro	325	perro colorado	425
no-shee trout	58	pargo prieto	325	perro perro	425
numbfish	27	pargos	336	pesca blanca	137
nurse shark	12, 22	parrot, mud	433	pesca pavone	18
nurse sharks	12	roseback	432	pesca vermiglia	367
				pescadillo del rey	252, 354
				pescadito	120

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
pescado azul de dos colores.	414	pipefish, ocean.	243	puffer.	498, 499
pescado blanco de chapala.	251	West Indian.	241	smooth.	497
pescado blanco de chalso.	250	pipefishes.	240	southern.	498
pescado colorado.	348	pipec.	199	puffers.	497
pescado del rey.	252	pipon.	98	sharp-nosed.	500
pescados blancos.	250	piquier.	362	Puget Sound pollack.	209
pescados del rey.	246	pirate.	215	pug-nosed shiner.	275
pesce rey.	252	pirate perch.	215	pumpkinseed.	302
pesce tondo.	19	pirate perches.	215	pumpkinseeds.	297
pesce toro.	497	plaise.	226	purague.	23
petite gueule.	341	plain leatherjacket.	277	pursy minnow.	181
petite jaquette.	414	plaintail.	261	Putnam's darter.	285
petite scie.	333	plateado.	98	Pyramid Lake trout.	57
petitnègre.	321	platefish.	456	quasky.	61
peto.	256	pluma.	337	queenfish.	353
petos.	256	plumbeus minnow.	136	queenfishes.	353
pez ciego.	479	Plumier's pigfoot.	370	queriman.	253
pez de espada.	23	pogge.	365	quiaquia.	270
pez de gallo.	280	pogy.	44	quiebra.	277
pez del rey.	247, 252	po-he-wa.	119	quillback.	103
pez de pluma.	336	poison grouper.	370, 371	quillback buffalo.	102
pez luna.	503	poison toadfishes.	488	quinnat salmon.	55
pez mola.	503	poisson bleu.	65, 152	quisutch.	54
pez puerco.	492	poisson de marais.	38	quiver.	299, 302
pez puerco de piedra.	491	poisson lune.	216	quiwee.	108
pez sierra.	23	pole crappie.	304		
pez zorro.	18	pole flounder.	228		
philosophie.	363	pollack.	209	rabbitfish.	261, 497, 502
phoebe.	319	Alaska.	209	rabbitmouth sucker.	112
picconou.	111	Puget Sound.	209	rabirubia.	327
picked dogfish.	19, 21	wall-eyed.	209	rabirubia de lo alto.	320
pickering.	282	pollack.	209	rabirubias.	327
barred.	173	pomfret.	265	racon perch.	281
eastern.	173	pomotis, northern.	302	radiated shanny.	470
little.	173	red-tailed.	299	ragfish.	269
pickering.	282	pompano, Carolina.	277	ragfishes.	265
picuda.	257	Irish.	342	rainbow darter.	291
picudilla.	255	pompon.	332	rainbowfish.	191
pigeon stingray.	28	ponce prieto.	329	rainbow herring.	67
bigfish.	335, 497	pondfish, black-eared.	299, 301	rainbow trout.	58
rock.	497	pond perch.	302	McCloud River.	58
sand.	497	yellow.	297	of fish-culturists.	58
bigfishes.	335	pond smelt.	68	rainfish.	180
bigfoot, Plumier's.	370	popeye.	205	rainwaterfish.	175
pigmy sculpin.	386	poppyfish.	266	rasciera.	365
pigmy sunfish.	205	porbeagle.	19	rasher.	365
Everglades.	395	mackerel.	19	rattfish.	33
pike, American.	173	porbeagles.	19	raton.	256
blue.	282	porcupinefish.	501	rat-tail, common.	205
common gar.	36	hairy.	501	rat-tails.	202
grass.	173	porcupinefishes.	501	raven, sea.	393
gray.	282	porkfish.	332	Rawson Lake herring.	63
great.	172	porgies.	336	ray, bishop.	30
great northern.	173	porgy.	336, 349	brier.	25
green.	173	grass.	337	butterfly.	29
harvest.	196	jolt-head.	336	clear.	25
Sacramento.	114	littlehead.	337	cow-nosed.	31
sand.	282	littlemouth.	337	hedghog.	25
sea.	196	red.	337	lady.	30
wall-eyed.	282	saucereye.	336	possum.	25
yellow.	282	shad.	337	shark.	22
pike minnow.	175	sheepshead.	337	sharp-nosed.	31
pike perch.	282	southern.	337	small electric.	27
pike perches, American.	282	speckled.	337	rays.	10, 23
pike shiner.	121	three-tailed.	358	eagle.	30, 31
pikes.	172	whitelone.	337	electric.	27
gar.	36	porte enseigne.	362	thick-tailed.	23
pilot, black.	413	Porto Rican anchovy.	51	whip-tailed.	28
cockeye.	413	portugais.	360	razorback.	305
cow.	415	Portuguese butterfly.	359	razor-backed buffalo.	102
shark.	279	Portuguese man-of-war fish.	268	razorback sucker.	108
pilotfish.	65, 278, 279	possum ray.	28	razorback suckers.	108
pilotfishes.	339	postcroaker.	349	razorfish.	430
pinco.	43	Potomac shad.	42	razorfishes.	430
pinfish.	337	pout, horned.	153, 154	real swordfish.	263
pinkfish.	447	pouts, horned.	151	red bass.	348
pink salmon.	54	prickfish.	166	red-bellied bream.	299, 300
pin minnow.	109	prickly bullhead.	383	red-bellied dace.	113
pinous dory.	276	prickly skate.	25	red-bellied robin perch.	299
pintado.	257	priestfish.	365	redbelly.	299, 300, 302
pintano.	415	puddingwife.	426	redbreast.	299
pintanos.	414	pudiano.	425	redbreast bream.	299
pipefish.	241	pudiano verde.	426	red drum.	348
common.	242	puerco espino.	501	red drums.	348
great.	240			redeye.	298, 302, 303
green.	242			little.	299

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
red-eyed bream	303	robalito de las aletas amarillas	306	rose trout	59
red-eyed sunfish	300, 303	robalito de las aletas prietas	306	Ross's arctic salmon	60
redeye mullet	254	robalo	305, 306	rosy dace	121
redeye perch	303	robalo prieto	306	rosy-faced minnow	124
red fallfish	127	robalos	305	rosy minnow	123
redfin	128, 131	robin	299, 302	rotgut minnow	146
compressed	126	Carolina	407	roughback	227
redfish	55, 318, 348, 363, 370	flying	409	rough silverside	248
bull	348	robin perch	299, 302	round bass	304
California	426	red-bellied	299	round basses	304
red goatfish	343	rock	307	round buffalo	102
red grouper	312	rock bass	297, 298, 317	round herring	46
red guatavere	309	common	303	round herrings	45
red hake	213	southern	303	round pampano	276, 277
red-headed bream	299	rock basses	303	round robin	270
red hind	311	rock beauty	361	round stingray	29
redhorse	109	rock cod, black and yellow	369	round sunfish	304
big-toothed	111	black-banded	370	roundtail	114
common	110	brown	369	round whitefish	65
eastern	111	flesh-colored	369	roussettes	11
short-headed	111	yellow-backed	369	rovalate	248
Texas	110	yellow-spotted	369	rovetto	261
redmouth buffalo fish	102	rock cook	424	royal silver trout	56
redmouth grunt	335	rock cooks	424	rubio volador	407
red-mouthed grunt	335	rock cusk	385	rudderfish	266, 268, 279, 340
red mullet	111, 343	rockfish	176, 283, 305, 307, 311, 313, 315, 456, 461, 467	black	268
red parrotfish	432	black	365	black	267
red perch	299, 300	brown	368	black	302
red porgy	337	grass	369	rufi	272, 277, 279
red rockfish	368	grassy ground	320	blue	272
red rock trout	374	marbled	314	Russian cat	155
red roncador	348	orange	365	ruvetto	261
red roncadors	348	red	368		
red salmon, medium	54	spotted	367	sabalito	99
red sculpin	381	yellowtail	364	sabalo	39, 40
red sea fish	363	rockfishes	363, 364	sabina	28
red-sided bream	118	rock hind	308, 309, 310	sable	262
red-sided shiner	120	rockling	208	sablefish	373
red snapper	326	five-bearded	208	sablefishes	373
red-spotted sunfish	300	four-bearded	209	sac-à-lait	177, 302, 304
red-spotted trout	61	silvery	208	Sacramento cat	154
red sturgeon	35	three-bearded	208	Sacramento chub	120
red sucker	106	rocklings	208	Sacramento perch	303
red sunfish	299	five-bearded	208	Sacramento pike	114
red-tailed balao	199	four-bearded	209	Sacramento salmon	55
red-tailed bream	290	three-bearded	208	Sacramento River salmon	114
red-tailed pomotis	299	rock pigfish	407	Sacramento squawfish	34
redtail snapper	327	rock salmon	280	Sacramento sturgeon	106
red-winged gurnard	407	rock sea bass	318	Saginaw Bay herring	62
red-winged sea robin	407	rock shellfish	496	saibling, American	60
reina	368	rock sunfish	304	saleneur	362
remora	449	rock trout	373	sailfish	20, 103
Indian	448	red	374	Florida	263
white-tailed	448	Rocky Mountain bullhead	384	Mexican	263
remoras	448	Rocky Mountain whitefish	65	sailfishes	263
requiem	15	ronero	278	sailing sucker	103
requin	15	roncador	349	sailorfish	103
rescacio	370	little	348	sailors' choice	329, 335, 337
rex sole	228	red	350	salema	338, 339
ribbonfish	262, 353	yellow-finned	330, 331	salmichi	132
ringed perch	241	roncador rañado	334	salmon	54, 55
Rio Grande trout	57	roncadores	341	blueback	55
river bass	297, 298	red	348	calico	54
pale	297	ronco	346	chinook	55
spotted	298	ronco amarillo	330	coho	54
streaked-cheeked	298	ronco arará	330	common	55
river carp, blunt-nosed	103	ronco blanco	329	Columbia River	56
common	103	ronco carbonero	330	common Atlantic	54
river chub	137	ronco condenado	330	dog	55
river drums	352	roncodina	349	Fraser River	55
river lamprey	8	ronco grande	330	hoopid	54
river lampreys	9	ronco prieto	329	humpback	54
river minnow	176	ronco ronco	330	jack	282
river perch	281	roncos	329	king	55
river perches	281	rondanin	265	king of the	216
river sucker	111	ronquil	452	landlocked	56
river sucker	299	ronquils	451	le kai	54
river sunfish	282	Roosevelt trout	59	medium red	54
river trout	282	rosterfish	280	Namaycush	59
roach	115, 299, 302, 305	roter	102	Pacific	54
harlequin	302	roseback parrot	432	pink	54
Monterey	122	rosefish	363	quinnat	55
Navarro	121	rosesfishes	363	rock	280
northern	122				
venus	122				
robalito	306				

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
salmon, Ross's arctic.....	60	scamp.....	315	segundo.....	272
Sacramento River.....	55	schoolmaster.....	325	Seneca Lake herring.....	62
sau-qui.....	55	Schuykill cat.....	154	Seneca Lake smelt.....	62
sebago.....	56	scirenga.....	315	sennet.....	255
silver.....	54	scorfanudi.....	370	señorita.....	427, 428, 458
sockeye.....	55	scorpene.....	371	señoritas.....	428
spring.....	55	scorpion.....	371, 487	seran imperial.....	370
sukkegh.....	55	scorpionfishes.....	363	sergeantfish.....	281, 305
tyee.....	55	scourfish.....	261	sergeantfishes.....	281
white.....	279, 297	sculpin.....	371	serra.....	171
of the Colorado.....	114	arctic.....	386	serrana.....	353
salmonete.....	343	black.....	387	serrana hispania.....	353
salmonete amarilla.....	343	brassy.....	386	serrano.....	318
salmon-formed growler.....	297	buffalo.....	381	sesele.....	305
salmon shark.....	19	common.....	386	sesi de lo alto.....	326
salmon trout.....	58	daddy.....	387	shad.....	42, 103, 304, 341
Kamchatka.....	56	eighteen-spined.....	386	Alabama.....	43
of Lake Southerland.....	57	European.....	386	American.....	42
salt-water gar.....	196	great.....	387	broad.....	341
salt-water trout.....	355	lake.....	389	common.....	42
San Bernardino trout.....	59	long-spined.....	386	Connecticut River.....	42
sand conger.....	454	pignny.....	386	gizzard.....	46
sand dab.....	222	red.....	381	hickory.....	42, 46
sand darter.....	287, 288	yellow.....	381, 393	North River.....	42
sand darters.....	289	sculpins, scaled.....	375	of Lake Champlain.....	64
San Diego sole.....	231	scaleless.....	383	Ohio.....	42
sand-diver.....	164	daddy.....	386	Potomac.....	42
sand eel.....	451, 485	scup, common.....	336	young.....	115
sandfish.....	318, 357	scuppaug.....	336	shad lamprey.....	8
sand lance.....	471	sea ape.....	18	shad porgy.....	337
Alaska.....	451	sea bass.....	317, 348	shadwaiter.....	65
sand lances.....	451	black.....	317	shads, gizzard.....	46
sand lancee.....	451	gulf.....	318	shanny, Bose's.....	462
sand launces.....	451	of California, white.....	356	nine-lined.....	462
sand perch.....	302, 305	rock.....	318	radiated.....	470
sand pigfish.....	407	sea basses.....	308	shark, basking.....	20
sand pike.....	282	sea bats.....	506	bay.....	15
sand roller.....	215	sea bream.....	265	bone.....	20
sand rollers.....	214	sea breams.....	265	bonnethead.....	17
sand shark.....	19	sea cat.....	149	bramble.....	22
sand sharks.....	19	sea catfish.....	148, 149	bullhead.....	22
sand starazers.....	454	sea catfishes.....	147	California angel.....	22
sand sturgeon.....	35	sea devil.....	32	cat.....	14
sand sucker.....	109, 350	sea devils.....	31, 508	cazon de playa.....	16
sanducha.....	39	sea dog.....	424	cod.....	21
sand whiting.....	350	sea drums.....	352	codfish.....	21
San Pedro fish.....	216	sea eel.....	88	common gray.....	15
sapo.....	486, 487	sea fish, red.....	363	cow.....	11
sardina.....	48, 98, 249	sea fox.....	11	cub.....	15
sardina blanca.....	109	sea goldfish.....	415	dog.....	13
sardina bocona.....	50	seahorse.....	244	dusky.....	16
sardina de España.....	43	common American.....	244	East Indian basking.....	18
sardina de ley.....	43	seahorses.....	240	elephant.....	20
sardina escamuda.....	43	sea lamprey, great.....	8	fish.....	18
sardina machete.....	44	sea mink.....	350	fox.....	18
sardine, California.....	43	sea mullet.....	350	fresh-water.....	16
smooth.....	43	sea owl.....	397	gray.....	15
sardines, scaled.....	43	sea perch.....	307	great blue.....	17
smooth-headed.....	42	sea pike.....	196	hammerhead.....	18
true.....	42	sea poacher.....	395, 397	leopard.....	14
sarg, sunfish.....	504	sea poachers.....	393	little bullhead.....	22
sargo.....	337, 338	sea possum.....	25	longtail.....	18
sargo rondo.....	332, 338	sea raven.....	269, 393	mackerel.....	19
satfinn.....	129	sea ravens.....	393	Newfoundland.....	11
saucero y porgy.....	336	sear.....	257	nurse.....	12, 22
saucer.....	282	sea robin.....	407, 408	oil.....	14
sau-qui salmon.....	55	brown-winged.....	407	salmon.....	19
saures.....	279	Carolina.....	407	sand.....	19
saury.....	197	lined.....	407	sharp-nosed.....	14
sautour.....	277	red-winged.....	407	shovelhead.....	17
sav amba.....	39	small-sealed.....	407	shovelnose.....	18, 19
scab.....	262	spotted.....	407	shovel-nosed.....	11
web-fingered.....	407	striped.....	407	sleeper.....	22
scabbelly.....	42	sea robins.....	407	small blue.....	16
scabfish, common.....	23	sea serpent.....	88	soup-fin.....	14
scabfishes.....	23	sea smelt.....	350	spotted.....	14
scabbardfish.....	262	sea snail.....	399, 400	swell.....	12
big-eyed.....	271	striped.....	400	thornback.....	21
dotted.....	270	sea snails.....	399	tiger.....	14
mackerel.....	270	sea trout.....	355	whale.....	18
scaled sardines.....	43	spotted.....	355	wharf.....	16
scaled sculpins.....	375	sea weed blenny.....	461	white.....	16
scale sculpin.....	383	sea whitefish.....	357	shark pilot.....	279
		sebago salmon.....	56	shark ray.....	22

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
sharks.....	10	silverside minnow.....	119	snake blenny.....	471
angel.....	22	silversides.....	246, 247, 248	spotted.....	469
basking.....	20	silver trout.....	57	snake eels.....	84
bramble.....	22	royal.....	56	snakefish.....	163, 471
bullhead.....	10	silver whiting.....	351	snake mackerel.....	260
cat.....	11	silvery gar.....	196	snake mackerels.....	261
cow.....	11	silvery hairtail.....	262	snap mackerel.....	280
gray.....	13	silvery minnow.....	132, 143	snapper.....	280, 363
great white.....	20	silvery minnows.....	123	Bermuda silk.....	326
hammer-headed.....	17	silvery rockling.....	208	black fin.....	326
mackerel.....	19	singingfish.....	487	dog.....	325
man-eater.....	20	single-bearded flyingfish.....	201	gray.....	325
nurse.....	12	sirago.....	447	Lane.....	327
sand.....	19	siscowet.....	60	mahogany.....	327
sleepers.....	21	skate.....	25	mangrove.....	313, 325
tectospondylous.....	21	barndoor.....	25	Mexican.....	326
thresher.....	18	bobtailed.....	25	Pensacola.....	326
true.....	11	California big.....	26	red.....	326
whale.....	18	California common.....	26	redtail.....	327
sharksucker.....	448	clear-nosed.....	25	silk.....	326
sharp-finned flyingfish.....	200	common.....	25, 26	West Indian.....	326
sharp-nosed flyingfish.....	199	little.....	25	snappers.....	324
sharp-nosed puffers.....	500	peck-nosed.....	25	snapping mackerel.....	280
sharp-nosed ray.....	31	prickly.....	25	snipe eel.....	83
sharp-nosed shark.....	44	summer.....	25	snipe eels.....	83
sharp-tailed goby.....	441	winter.....	25	snipefish.....	246
shecutts.....	355	skates.....	10, 24	snipefishes.....	245
sheepshead.....	338, 426	skil.....	373	snipnose mullet.....	268
lake.....	352	skilfishes.....	373	snook.....	305
three-banded.....	358	skimback.....	103	snowy grouper.....	311
sheepshead minnow.....	181	skipjack.....	42, 197, 251, 259, 279, 280	snub-nosed eels.....	78
sheepshead porgy.....	337	skip mackerel.....	280	soapfish.....	163, 316
sheepsheads.....	338	skipper.....	197	black.....	316
shellcracker.....	302	skippick.....	196	soapfishes.....	316
shellfish.....	497	skittle-dog.....	19, 21	sobaco.....	492
rock.....	496	skowitz.....	54	sobacos.....	492
sheppy argentine.....	73	sleepers.....	435, 436, 440	sockeye salmon.....	55
shielded darter.....	283	striped.....	436	soft-rayed fishes.....	39
shiner.....	115, 123, 128, 129, 132	sleepers.....	435	soldado.....	235
blunt-nosed.....	275	sleepers.....	22	soldierfish.....	291
goldthread.....	116	sleepers shark.....	21	soldierfishes.....	234, 235
pike.....	121	slender halfbeak.....	198	sole, American.....	229
pug-nosed.....	275	slimefish.....	8	California.....	222
red-sided.....	120	slimy.....	487	gray.....	228
smelt.....	132	slippery dick.....	426, 485	lemon.....	228
spotted.....	138	slough bass.....	297	long-finned.....	228
swallow minnow.....	133	small black lamprey.....	9	Mexican.....	230
shining bass.....	304	small blindfish.....	195	rex.....	228
shoemaker.....	274, 279	small blue shark.....	16	San Diego.....	231
shore whiting.....	351	small catfish.....	154	somka.....	56
short barracuda.....	255	small catfish.....	32	sorcerers.....	82
short-finned roach.....	122	small devilfish.....	265	soup-fin shark.....	14
short-headed redhorse.....	111	small dolphin.....	27	soursap.....	501
short-nosed gars.....	37	small electric ray.....	300	South American catfishes.....	156
short-nosed sturgeon.....	34	small green sunfish.....	180	southern chub.....	277
short-tailed menhaden.....	44	small guabun.....	102	southern flounder.....	224
shovelhead shark.....	17	smallmouth buffalo.....	298	southern miller's thumb.....	385
shovel-nosed shark.....	11	small-mouthed black bass.....	407	southern mooneye.....	41
shovelnose shark.....	18, 19	small-sealed sea robin.....	228	southern porgy.....	336
shovelnose sturgeon.....	35	smear dab.....	228	southern puffer.....	498
white.....	35	smelt.....	132, 143	southern rock bass.....	303
shovelnose sturgeons.....	35	American.....	67	southern stingray.....	28
Shumard's darter.....	285	California blue.....	252	southern striped gurnard.....	407
sier.....	257	Cobessicentic.....	67	southern toothed herring.....	41
siering.....	257	ghost.....	68	spadefish.....	36, 358
sierra.....	257	Kodiak.....	67	Spaniard.....	257
sierita.....	196	little.....	252	Spanish flag.....	338, 368
silk snapper.....	326	pond.....	68	Spanish flags.....	308
Bermuda.....	326	sea.....	350	Spanish hogfish.....	425
silver bass.....	305, 307	Seneca Lake.....	62	Spanish ladyfish.....	425
silver carp.....	103	surf.....	67	Spanish mackerel.....	257
silver chub.....	117, 137	Wilton.....	67	black-spotted.....	257
silverfin.....	129, 132	smelt minnow.....	143	Monterey.....	257
silverfish.....	39, 214, 248, 262	smelt shiner.....	132	of England.....	258
hair-finned.....	275	smelts.....	66, 67	sparada.....	404
silver gar.....	196	ghost.....	68	spawneater.....	132
silver hake.....	214	surf.....	67	speardish.....	103
silver jenny.....	341	smooth blackfish.....	424	black.....	263
silver lamprey.....	9	smooth cabezon.....	390	true, of Japan.....	263
silver-mouthed minnow.....	142	smooth dogfish.....	13	speardfishes.....	263
silver perch.....	304, 305, 307, 310, 345	smooth-headed sardines.....	43	spearfish sucker.....	450
silver salmon.....	54	smooth hound.....	13	spearling, ground.....	163
silverside.....	247	smooth puffer.....	497	speck.....	287
brook.....	251	smooth sardine.....	43	speckled bass.....	305
fresh-water.....	247	smooth swellfish.....	497	speckled hind.....	297, 298
rough.....	248				312

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
speckled perch	304	stickleback, four-spined	239	sucker, May	112
speckled porgy	337	nine-spined	239	Missouri	102
speckled trout	60	sticklebacks	237	mountain	104
of Lake Crescent	57	nine-spined	238	mud	107
spet.	255	stingaree	28, 31	northern	106
spike	282	stingray	28	pealip	112
spinous dory	276	California	31	rabbitmouth	112
spinous gurnard	407	long-tailed	31	razorback	108
spinous lumpfish	398	round	29	red	106
spinyback blowfish	498	southern	28	river	111
spiny boxfish	502	spotted	30	Sacramento	106
spiny dogfish	21	whip	28	sailing	103
spiny eels	75	stingrays	28	sand	109, 350
split-mouth sucker	112	stitt-tse	58	spearfish	450
splittail	116	stockfish	214	split-mouth	112
spoonbill cat	36	stone bass	308	spotted	107, 109
spot	349	stone cat	155	striped	109
white	339	stone cats	155	sturgeon	106
spottail	348	stonelugger	107	sweet	109
spot-tailed minnow	132	stoneroller	107, 146	swordfish	449
spotted balloonfish	502	stonerollers	146	Tahoe	107
spotted bass	297, 348	Storer's chub	137	Webbug	108
spotted bream	290	straw bass	297, 305	white	105, 110, 111
spotted cabrilla	317	strawberry bass	302, 305	white-nosed	109
spotted cero	257	strawberry perch	304	winter	109
spotted codling	213	straw-colored minnow	133, 134	suckerel	102
spotted cybium	257	streaked-checked river bass	298	suckermouth buffalo	102
spotted-finned sunfish	304	streaked lead	298	sucker-mouthed minnow	142
spotted grouper	311	striped anchovy	48	suckers	102
spotted hake	213	striped bass	297, 307	carp	103
spotted jewfish	312	striped dace	140	hard-mouthed	105
spotted kelpfish	458	striped grunt	329, 332	mountain	104, 105
spotted lycoles	474	striped grunts	331	razorback	108
spotted mackerel	257	striped gurnard, northern	407	spotted	109
spotted minnow	145	southern	407	suckfish	488
spotted moray	93	striped marlin	263	suckingfish	448
common	91	striped mud minnow	174	Suckley perch	304
spotted perch	305	striped mullet	253	suckleg salmon	55
spotted river bass	298	striped mullets	252	summer flounder	224
spotted rockfish	397	striped sea robin	407	summer herring	42
spotted sea robin	407	striped sea snail	400	summer skate	25
spotted sea trout	355	striped sleeper	436	Sunapee trout	60
spotted shark	14	striped sucker	109	sunfish	20,
spotted shiner	138	striped sunfish	411	115, 274, 275, 298-304, 495, 503	
spotted snake blenny	469	studs fish	170	banded	304
spotted squeteague	355	sturgeon, common	34	big-eared	300
spotted stargazer	454	green	34	big-mouthed	302
spotted stingray	30	lake	35	big-nosed	299
spotted sucker	107, 109	Ohio	35	black	302
spotted suckers	109	Oregon	34	black-banded	303
spotted sunfish	304	red	35	blackeye	298
spotted-tail minnow	129	Sacramento	34	black-tailed	300
spotted trout	305	sand	35	bloody	300
of Lake Southerland	57	short-nosed	34	blue	298, 301
spotted trunkfish	497	shovelnose	35	blue-and-green	298
spotted weakfish	355	white	34, 35	blue-mouthed	301
sprat	44, 51	white shovelnose	35	blue-spotted	298, 304
springfish	385	sturgeons	33	brilliant	300
spring salmon	55	shovelnose	35	buffalo	298
squaremouth	112	sturgeon sucker	106	common	300, 302
squairetail	260	sabotoka	171	deceptive	299
squairetails	260	sucker	8, 103, 110, 449	eared	300
squato	22	biglip	109	Everglades pigmy	305
squawfish	113, 114	black	106, 107	fresh-water	299
Colorado River	114	black winter	109	gilded	301
Sacramento	114	blue	146	green	298
squeteague	355	bluehead	104	horned-eared	299
spotted	355	bootleg	107	little	304
squirrelfish	235, 318, 330	brook	105	long-eared	299, 300
squirrelfishes	234, 235, 318	carp	103	long-finned	304
squirrel hake	213	chub	108, 109	long-sealed	300
squit	355	Columbia River	106	many-spined	304
Stanley's whitefish	65	common	105	mud	303
stargazer	454	creek	109	ocean	503
little	385	fine-sealed	105	orange-spotted	300
spotted	454	flannel-mouthed	107	pigmy	305
stargazers	454	gourdseed	102	red	299
sand	454	gray	106	red-eyed	300, 303
star-headed minnow	178	harelip	112	red-spotted	300
starry flounders	226	hog	107	river	299
steel-backed chub	146	humpback	108	rock	304
steel-colored minnow	129	June	108	round	304
steelhead	58	large-sealed	110	small green	300
Stewart White trout	59	long-nosed	106	spotted	304
stickleback, brook	238	Lost River	108	spotted-finned	304
common eastern	238				

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
sunfish, wide-mouthed	302	threadfins	256	trout, golden, of south fork	
sunfish bass	303	threadfish	274	of Kern River	59
sunfishes	297, 299	eight-threaded	256	of Sunapee Lake	60
sunny	302	thread herring	44	of Volcano Creek	59
sun bass	302	three-angled trunkfishes	497	of western tributaries	
sun perch	299, 300, 303, 305	three-banded sheepshead	358	of Kern River	59
sun trout	302	three-bearded rockling	208	gray	355
surflish, bigmouth	411	three-bearded rocklings	208	Great Lakes	59
black	411	three-tailed porgy	358	great, of Lake Tahoe	57
striped	411	three-toothed lamprey	10	greenback	57
wall-eyed	410	thrasher	18	green	297, 298
white	411	thrasher sharks	18	Jordan's	57
surflishes	409	thunderpumper	352	Kamchatka salmon	56
surf smelt	67	thunderpumpers	352	Kamloops	58
surf smelts	67	tiburon	17	Kern River	58
surf whiting	351	tiburon ballenas	18	Lac de Mabre	61
surgeon, blue	362	ticky-ticky	178, 185	Lake Tahoe	57
common	362	tiger shark	14	long-headed, of Crescent	
surgeonfishes	362	tigrono	14	Lake	57
surmullet	343	tilefish	357	Lower California	59
Susan's darter	288	timber crappie	304	Mackinaw	59
swago bass	298	tinucu	195	Malma	61
swallower, black	452	tinker mackerel	258	Marston	61
swallowminnow shiner	133	tinmouth	204, 205	McCloud River rainbow	58
swallowers	95	tiñosa	273	mountain	298
black	452	tin perch	304	Nelson's	59
sweet sucker	109	tintoreva	18	nissue	58
sweet-o	298	tirante	262	no-shee	58
swellbelly	498	tirantes	262	Oquassa	61
swellfish	498, 499	tiru	163	Pyramid Lake	57
smooth	497	toadfish	487, 498	rainbow	58
swellfishes	498	toadfishes	487	of fish-culturists	58
swellingfish	498	poison	488	red rock	374
swell shark	12	tobacco box	25, 299, 302	red-spotted	61
swelltoad	498, 502	tobacco trumpetfish	245	Rio Grande	57
swelltoads	501	toeroe	354	river	282
swingletail	18	togue	59	rock	373
switchtail	35	tomcod	210	Roosevelt	59
swordfish	196	California	210	rose	59
common	264	tomcoods	210	royal silver	56
real	263	tomtate	331	salmon	58
swordfishes	264	tomtates	331	of Lake Southerland	57
swordfish sucker	449	tonquefish	231	salt-water	355
swordtail	193	tonquefishes	230	San Bernardino	59
sybranchoid eels	76	toothed herring	40	sea	355
		southern	41	spotted	355
		top minnow	177, 178, 185	silver	57
tadpole eels	155	Holbrook's	185	speckled	60
Tahoe sucker	107	top minnows	184	of Lake Crescent	57
tailor	280	toro	273, 497	spotted	305
tailor herring	42	torpedo	27	of Lake Southerland	57
tallywag	317	California	27	Stewart White	59
tambor	368, 497, 498, 499	great	27	Sunapee	60
tang	362	torpedofish	27	Truckee	57
blue	362	torsk	214	Verde	114
tanbarbero	362	toter	107	Volcano Creek	59
tangbrosme	471	totuava	356	Waha Lake	56
tangs	362	trembler	27	white	297, 298
tarentola	163	trench mullet	253	yellowfin	57
tarpon	39	triggerfish	491	Yellowstone	56
tarpon fry	51	tripletails	323, 358	trout bass	298
tarpons	39	tripletail	323	trout perch	214, 215, 298
tarpum	39	trompetero	245	trucha	254
tassellated darter	287	trout	54, 55, 297	Truckee trout	57
tautog	424	alekey	212	true eels	77
tautoga	424	aurora	61	true fishes	33
tautogs	55	blueback	60	true sardines	43
tchaviche	21	of Lake Crescent	57	true sharks	11
tectospondylous sharks	21	brook	60	true spearfish of Japan	263
teipalcate	230	of western Oregon, etc	58	trumpetfish	245, 246
tenpounder	39	brown	298	tobacco	245
tenpounders	39	bull	61	unarmed	245
tessellated darter	290	coast-range	57	trumpetfishes	244
tessellated darters	287	Colorado River	58	trunkfish	496
testar	489	Columbia River	56	common	497
tetard	436, 489	cut-throat	56	horned	497
tête de roche	333	Dolly Varden	61	spotted	497
Texas redhorse	110	Dublin Pond	60	trunkfishes	496
thick-tailed rays	23	Eagle Lake	58	three-angled	497
thimble-eyed ling	213	eastern brook	60	tschaviche	54
thimble-eyed mackerel	258	emerald	58	tschawytscha	55
thornback shark	21	Evermann's	59	tswam	108
thread eels	83	fresh-water	297	tulipi	64
thread filefish	494	Gila	114		
threadfin	256				

List of common names of fishes occurring in check list—Continued

	Page		Page		Page
tullibee	64	web-fingered sea robin	407	whiting	214
Manitoulin	64	Webb sucker	108	California	350
tuna, Allison's	260	welchman	235	Carolina	350
leaping	259	welshman	297	northern	350
tunnies	259	western lamprey	10	of Lake Winnepesaukee	64
great	259	West Indian lancelet	7	sand	350
tunny, little	258	West Indian pipefish	241	shore	351
turbot	491	West Indian snapper	326	silver	351
ocean	492	West Indies long-finned al-		surf	351
Tuscombiana darter	293	bacore	260	wide-mouthed sunfish	202
tusk	214	white shark	18	widow fish	306
tyee salmon	55	white sharks	18	willow cat	152
tyrantfish	262	wharf shark	16	Wilton smelt	67
		whiffs	218	windfish	115, 117
ulke	386	Whipple's darter	292	windowpane	217
ulmina	98	whipsnake eel	88	windowpanes	217
ulua	272	whip stinger	28	winnish	56
unarmed trumpetfish	245	whip-tailed rays	28	winter flounder	227
unemak	477	whirling mullet	253	winter flounders	227
unicornfish	495	whitebait	41, 247, 248	winter skate	25
unspotted balloonfish	502	white bass	297, 303, 307	winter sucker	109
		white-bill	43	black	109
vaagmår	216	whitebone porgy	337	wolf eel	472
vaca	321	white cat	152, 153	wolfish	171, 472
vacas	320	white crappie	304	wood bass	298
vacuoca	345	white croaker	353	worm eels	82
Vahl's lycodes	474	white-eye	282	wreckfish	308
vaqueta de los colores	361	whitefish	44, 64, 114	wreckfishes	308
variegated goby	446	Bear Lake	65	wrymouth	471
variegated minnow	181	Bonneville	65		
Venus reach	122	common	65	xurel	272
Verde trout	114	Coulter's	65	xurel de castilla	276
verrugata	351	humpback	65		
verrugate	349	Kennicott's	65	yaito	259
viñaca	419	Labrador	64	yawmouth perch	302
violetfishes	258	Lake Erie	65	yellow angel	361
violet	255	Lake Superior	65	yellow-backed rock cod	369
violet	162, 374	Lauretta	62	yellow bass	297, 298, 307
vieja colorada	433	Manitoba	64	yellow belly	299, 302
vieja mager	423	Menominee	65	yellow bream	302
vies	151	Musquaw River	64	yellow caranx	273
Virginia lancelet	7	Nelson's	65	yellow cat	153, 155
viñva	366	Rocky Mountain	65	yellow-finned albacore	260
viviparous perch	409	round	65	yellow-finned albacores	260
viviparous perches	409	sea	357	yellow-finned grouper	311, 313
volador	202, 263, 409	Stanley's	65	yellow-finned roneador	350
Pacific	263	Yellowstone	65	yellow fin trout	57
volantin	272	whitefishes	61, 64	yellow fish	303, 374
Volcano Creek trout	59	white grunt	331	yellow goatfish	343
voraz	328	white hake	213	yellow grouper	314
		white lake bass	307	yellow grunt	330
Wachna cod	210	whitemouth drummer	349	yellow jack	272
Wahia Lake trout	56	white mullet	109, 253	yellow mackerel	27, 273
walleye	282	white mullets	253	yellowmouth	356
wall-eyed herring	42	white-nosed sucker	105	yellow Ned	281
wall-eyed pike	282	white perch	304, 305, 307, 352, 410	yellow perch	281, 298, 299, 302
wall-eyed pollack	209	white salmon	279, 297	yellow pike	282
wall-eyed surfhish	410	of the Colorado	114	yellow pondperch	297
warmouth	502	white sea bass of California	356	yellow sculpin	381, 393
black	202	white shark	16	yellow-spotted rock cod	369
warmouth bream	302	white sharks, great	20	Yellowstone trout	56
warmouth perch	302	white shovelnose sturgeon	35	Yellowstone whitefish	65
waterbelly	64	white spot	339	yellowtail	276, 279, 327, 345, 349
wawwunnekesnog	257	white sturgeon	34, 35	yellow-tailed croaker	350
weakfish, bastard	355	white sucker	105, 110, 111	yellowtail rockfish	364
common	355	white surfhish	411	young grunt	331
spotted	355	white-tailed remora	448	young shad	115
weakfishes	353	white trout	297, 298	zapatero	277

LIST OF SCIENTIFIC NAMES

	Page		Page
abacurus, Eleotris	437	Acanthocottus patris	389
aboti, Syngnathus	240	profundorum	392
abotti, Anchovia	50	scorpioides	386
Anchoviella	50	scorpius	386
Hydrophlox	127	sellaris	388
Notropis chalybaeus	127	Acanthocybiidae	256
Osmerus	67	Acanthocybium	256
mordax	67	petus	256
abbreviata, Chimæra	33	solandri	256
abbreviatus, Bathyalopex	33	Acanthoderma	261
Naucleus	278	temminckii	261
Abeona	409	acanthoderma, Thyrsites	261
aurora	409	acanthognathus, Lophodolus	509
trowbridgii	409	Acantholebias	373
aberrans, Hypoplectrus	321	Acantholepis	68
Hypoplectrus unicolor	321	Acantholiparis	401
Liopropoma	316	opercularis	401
Perca	316	Acanthonotus	75
abildgaardi, Sparisoma	432	nasus	75
Sparus	432	quadricornis	497
abildgardii, Scarus	431	Acanthonus	483
Abiannes	197	armatus	483
hians	197	spinifer	483
Aboma	443	Acanthophaecus	191
chiquita	443	melanzonus	191
etheostoma	443	acanthophorus, Serranus	317
lucetia	443	acanthopoma, Draconetta	450
(Abramis) baleatus, Cyprinus	117	Acanthopterygii	232
smithii, Cyprinus	41	Acanthosoma	503
Abramis bosci	350	carinatum	503
versicolor	115	Acanthostracion	497
(Abramis) balteatus, Cyprinus	118	polygonius	497
Abudeuduf	414	Acanthuridae	362
analogus	415	Acanthurus	362
declivifrons	415	aliala	363
marginatus	415	bahianus	363
taurus	415	brevis	362
troschelli	415	broussonetti	362
abyssicola, Coregonus	66	cæruleus	362
Prosopium	66	crestonis	363
Raja	26	ctenodon	363
abyssorum, Nematourus	204	glaucopterus	363
acadian, Cottus	393	hepatus	362
acadianus, Glyptocephalus	228	hirudo	362
Acantharchus	303	phlebotomus	362
pomotis	303	striatus	363
Acanthemblemaria	465	strigosus	363
spinosa	465	subarmatus	362
Acanthenchelyidae	89	tractus	363
Acanthenchelys	89	triostegus	362
spinicauda	89	zebra	362
Acanthias	21	Acara adpersum	418
americanus	21	bartoni	419
suckleyi	21	cæruleopunctata	423
vulgaris	21	pinima	332
acanthias, Monoceratias	508	pitamba	327
Squalus	21	rectangulare	421
Acanthicus canensis	161	tetramerus	423
Acanthidium	21	acara-pinima, Pristipoma	333
calcea	21	Acanthorhinus	21
pusillum	21	accensum, Plectropoma	321
Acanthinion	276	accensu, Hypoplectrus unicolor	321
acanthistius, Bodianus	309	Accipenser macrostomus	35
Enneistius	309	ohiensis	35
Acanthoclinus	457	serotinus	35
chaperi	457	acclinidens, Cyclothone	72
Acanthocottus	386	acclivis, Larimus	344
æneus	386	Acedia	231
bubalis	386	nebulosa	231
greenlandicus	387	Acentrolophus	267
labradoricus	388	maculatus	267
laticeps	388	maculosus	267
mitchilli	386	Aceratiidae	511
mucosus	387	acervum, Cybium	257
ocellatus	387	Acharinæ	229
octodecemspinosus	386	achigan, Bodianus	298

List of scientific names—Continued

	Page		Page
Achiridae.....	229	Acomus.....	105
Achirophichthys typus.....	89	(Acomus) generosus, Catostomus.....	104
Achirus.....	229	griseus, Catostomus.....	107
achirus.....	229	guzmaniensis, Catostomus.....	104
barnharti.....	230	lactarius, Catostomus.....	107
comifer.....	230	acoupa, Cheilodipterus.....	354
fasciatus.....	229, 230	Cynoscion.....	354
fonsecensis.....	230	Acrocheilus.....	112
inscriptus.....	229	alutaceus.....	112
kilunzingeri.....	229	acrolepis, Macrurus.....	203
lineatus.....	229, 230	Nematonurus.....	203
mazatlanus.....	230	acronotus, Carcharias.....	16
ornatus.....	231	Squalus.....	16
scutum.....	229	Acropoecilia.....	190
achirus, Achirus.....	229	(Acropoecilia) tridens, poecilia.....	190
Pleuronectes.....	229	Acronurus.....	362
Achrophichthys.....	89	caeruleatus.....	362
typus.....	89	carneus.....	362
Acipenser.....	33	fuscus.....	362
acutirostris.....	34	nigriculus.....	363
aleutensis.....	34	Acrotidae.....	269
(Antaceus) agassizii.....	34	Acrotus.....	269
alexandri.....	34	willoughbyi.....	269
buffalo.....	35	Acteis.....	460
cinnamomi.....	35	culebre.....	460
oligopeltis.....	34	moorei.....	460
ayresi.....	34	Actinochir.....	401
bairdi.....	34	major.....	401
brachyrhynchus.....	34	Actinopteri.....	33
brevirostris.....	34	aculeata, Chrysophrys.....	336
brevirostrum.....	34	aculeatus, Chelmon.....	359
carbonarius.....	35	Climus.....	470
caryi.....	34	Etmopterus.....	21
dekayi.....	34	Gasterosteus.....	237
fulvescens.....	33, 35	Halieutichthys.....	507
girardi.....	34	Lophius.....	507
glabra.....	34	Prognathodes.....	359
halops.....	34	aculeatus (oculatus), Serranus.....	328
helops.....	34	aculeis, Gasterosteus.....	239
holbrookii.....	34	acuminata, Halecula.....	46
huso.....	33	Murana.....	85
(Huso) anasimos.....	35	acuminatus, Etrumeus.....	46
anthracinus.....	35	Grammistes.....	353
atelaspis.....	35	Myrichthys.....	85
copel.....	35	Pareques.....	353
kirtlandi.....	37	acuminatus umbrosus, Eques.....	353
lamaril.....	35	Acus.....	243
megalaspis.....	35	aiguereus.....	243
nertinianus.....	35	heckeli.....	244
paranasimos.....	35	martinicensis.....	243
rafiniesquii.....	35	maxima squamosa viridis.....	36
richardsoni.....	35	pellucidus.....	244
rosarium.....	35	acus, Atopichthys.....	54
kennicottii.....	34	Gymnotus.....	101, 486
laevis.....	35	Sphyræna.....	196, 197
lagenarius.....	36	Syngnathus.....	240
lecontei.....	34	Tylosurus.....	197
lesueurii.....	34	acuta, Loricaria.....	161
liopeltis.....	35	Myllobatis.....	31
macrorhinus.....	34	Ophisoma.....	79
macrostomus.....	35	Pereca.....	281
maculosus.....	35	acuta scabra, Lophius.....	505
medirostris.....	34	acuticeps, Oligocephalus.....	391
microrhynchus.....	34	Oxycephalus.....	391
milberti.....	34	acutirostris, Acipenser.....	34
mitchilli.....	34	Corvina.....	346
ohiensis.....	35	Ichthyopus.....	84
oxyrhynchus.....	34	Lutjanus.....	325
oxyrhynchus.....	34	Parepinephelus.....	315
platyrhynchus.....	35	Pristis.....	23
putnami.....	34	Serranus.....	315
rhynchæus.....	35	acutirostris lata, Cerna.....	315
rubicundus.....	35	acutiventris, Alfar.....	193
rupertianus.....	35	Acutomentum.....	365
ruthenus.....	34	alutum.....	366
schypa.....	34	brevispine.....	366
stellatus.....	34	clavilatum.....	366
storeri.....	34	eigenmanni.....	366
sturio.....	33, 34	entomelas.....	366
transmontanus.....	34	hopkinsi.....	366
vultharius.....	34	macdonaldi.....	366
Acipenseridae, Agonus.....	33	ovale.....	366
Acipenserinus.....	394	prorigerum.....	366
Padotheus.....	394	rufum.....	366
ackleyi, Raja.....	25	wilsoni.....	366

List of scientific names—Continued

	Page		Page
acutum, Cichlasoma	422	affine, Myctophum	169
Hæmulon	329	Plectropoma	321
acutus, Exocoetus	199	Scopelus	169
Fodiator	199	affinis, Algansea	116
Scarus	431	Argyropeleus	74
Synodus	164	Atherinops	252
Thorichthys	422	Atherinopsis	252
adamantinus, Litholepis	38	Auchenopteris	457
Adinia	180	Carapus	486
multifasciata	180	Caulolatilus	357
adinia, Fundulus	179	Centropomus	306
Adioryx	236	Cheilodipterus	296
suborbitalis	236	Chilomycterus	502
adirondacus, Salmo	59	Chimæra	33
adobe, Agosia	141	Clinostomus	121
Apocope	141	Cremnobates	457
Adonis	460	Exocoetus	201
pavoninus	460	Exonatus	201
adscensionis, Trachinus	310	Fierasfer	486
adscensionis, Epinephelus	310	Gila	114
adspersa, Parapetenia	418	Heros	422
Rhinoptera	31	Heterandria	185
adpersum, Acara	418	Hypoplectrus unicolor	321
adpersus, Labrus	424	Isopisthus	353
Tautoglabrus	424	Lucania	175
adusta, Corvina	347	Pimelodus	152
adustus, Couesius	137	Pseudocheirodon	96
Eupomacentrus	414	Psychichthys	33
Gobiosox	489	Stomias	69
Julidio	428	Syngnathus	242
Ophioscion	347	Syrristes	242
Pomacentrus	414	Thorichthys	422
Pseudojulis	428	Thynnus	255
Æglefinus	210	agassizi, Careliparis	400
linnei	210, 211	Ipnops	171
æglefinus, Gadus	210, 211	agassizi, Acipenser (Antaceus)	34
Melanogrammus	211	Alepocephalus	51
Ælurichthys	147	Bathysaurus	164
isthmensis	148	Brama	265
longispinis	148	Callionymus	450
panamensis	148	Careliparis	400
scutatus	148	Chloropthalmus	165
ænea, Cichla	303	Chologaster	194
æneolus, Notropis	143	Cratinus	317
æneus, Acanthocottus	386	Cylindrosteus	37
Astyanax	96	Diceromita	480
Cottus	386	Forbesella	194
Pimelodus	155	Holconotus	411
Tetragonopterus	96	Hyperprosopon	410
ænigmaticus, Icosteus	269	Ipnops	171
æpyptera, Ammocetes	10	Leptocheilichthys	53
æquatoris, Talismania	53	Liparis	400
Æquidens	423	Pimphales	145
æruleopunctata	433	Salmo	60
æquidens, Culiis	437	Salvelinus	60
Otolithus	356	Scoræna	371
Prionodes	319	Toelichthys	410
Serranus	319	Ageneiosus	159
æquoreus, Acus	243	brevifilis	159
Syngnathus	243	caucanus	159
æreus, Sebastodes	367	aggregatus, Cymatogaster	409
æsculapius, Alepidosaurus	171	agilis, Gadus	209
Plagyodus	171	Agonidæ	393
ætopus, Boleosoma	287	Agonostoma globiceps	255
æstivalis, Clupea	42	microps	254
Gobio	138	nasutum	254
Maerhybopsis	138	percoides	254
Pomolobus	42	Agonostomus	254
æstivalis marconis, Hybopsis	138	salvini	254
æstuaris, Paralichthys	224	telfairii	254
æthalion, Citharichthys	218	Agonus	395
æthalaris, Careharias	17	acipenserinus	394
Æthopora	168	annæ	394
effulgens	168	barkani	394
lucida	168	cataphraetus	395
Ætobatidæ	30	deagonus	394
Ætobatis	30	dodecaædron	394
Ætobatus	30, 31	dodecaædrus	394
californicus	31	vulsus	395
fréminvillii	31	Agosia	140
goulet	31	adobe	141
laticeps	30	chrysogaster	140
æfer, Alphestes	312	falcata	141
Epinephelus	312	klamathensis	141
Gymnothorax	91	metallica	140

List of scientific names—Continued

	Page		Page
Agosia novemradiata	141	Albula	39
robusta	140	conorhynchus	39, 40
umatilla	141	erythrocheilus	40
yarrowi	141	forskali	39
Agriosphyraena	255	forsteri	40
agua-bonita, Salmo	59	goreensis	40
Salmo mykiss	59	neoguinaica	40
aguaji, Trisotropis	314	parra	40
agulha, Peixe	195	plumieri	40
Ahlia	82	rostrata	40
egmontis	82	seminuda	40
Ahynnodontophis	94	vulpes	39
stigmatotus	94	albula, Mugil	253
algula, Lachnolaimus	125	Albulidae	39
Ailurichthys	147	Albuloides	39
pinnimaculatus	148	albus, Bryttus	302
ailurus, Pimelodus	153	album, Haemulon	329
aimara, Macodon	99	Moxostoma	110
aix, Pallasina	394	Alburnellus	123
alabama, Alosa	43	altipinnis	127
Claricola	292	amoenus	123
Etheostoma whipplei	292	arge	124
Notropis	126	dilectus	123
alalunga, Bothrocara	477	jaculus	123
Scomber	260	jamezianus	125
Scombrus	260	matutinus	126
alalunga, Germon	260	micropteryx	124
Scomber	260	percolabrus	124
alascama, Asterothea	396	simus	135
alascanus, Amnodytes	151	Alburnops	133
Argyrosomus	62	biennis	133
Leucichthys	62	heterodon	136
Sebastolobus	364	ilicebrosus	134
Xenochirus	396	longirostris	135
alata, Fissala	408	nubilis	141
alatus, Artus	148	plumbeolus	128
Lamparyctus	167	sulidatus	132
Nyctimaster	167	shumardi	134
Prionotus	408	taurocephalus	145
Alatus	42	Alburnus amabilis	124
Alatselli	41	americanus	350
Alazon	190	dilectus	125
alba, Rogenia	41	formosus	129
albacauda, Echenis	448	lepidulus	125
Albacora	259	lineolatus	135
albacoeres, Neothunnus	260	megalops	125
Scomber	260	nitidus	123
Albatrossia	204	oligaspis	125
pectoralis	204	rubellus	123
albatrossis, Osmerus	67	rubrifrons	124
Thalassichthys	67	socius	124
albatrossus, Macrourus	206	unibratilis	125
albicus, Chirope	136	zonatus	128
Luxilus	129	alburnus, Perca	359
Notropis	136	albus, Atherinichthys	251
Notropis megalops	129	Centropomus	307
albescens, Echenis	449	Coregonus	62, 65
Paraliparis	404	Coregonus clupeaformis	65
Remorina	449	Gymnotus	101
albicaudus, Auchenopterus	457	Ericson	356
albidactylus, Exocoetis	202	Lepidosteus	37
albidum, Haemulon	329	Otolithus	356
albidus, Gadus	214	Parascaphirhynchus	35
Labrax	307	Psychostomus	110
Osmerus	163	Aleiden	375
Pimelodus	150, 153	thoburni	375
Psychostomus	110	Aldrovandus	75
albifimbria, Scorpæna	371	goodei	75
albifrons, Gymnotus	101	gracilis	75
albigutta, Cathetostoma	454	macrochir	75
Kathetostoma	454	pallida	75
Paralichthys	224	rostrata	75
albiguttus, Paralichthys	224	Alectis	271
albiguttus, Gymnothorax	93	erinitus	271
Lycodontis	93	Alelon	503
albipinnis, Lucifer	70	storeri	503
albirostris, Corythoichthys	243	Alepes	271
Hippichthys	243	melanoptera	271
Prionotus	408	Alepidosaurus asculapius	171
albifasciata, Scorpæna	371	borealis	171
albolineatus, Fundulus	177	(caulopus) poeyi	171
albomaculatus, Crossias	389	sepiæ	171
Serranus	317	alepidota, Chienopsis	465
albpunctatus, Gobius	410	alepidotum, Gobiosoma	446

List of scientific names—Continued

	Page		Page
<i>alepidotus</i> , <i>Chaetodon</i>	265	<i>Allocottus</i>	391
<i>Derepodichthys</i>	479	<i>embryum</i>	391
<i>Gobius</i>	445, 446	<i>Allogambusia</i>	188
<i>Lucioblennius</i>	465	<i>cana</i>	188
<i>Alepisauridae</i>	171	<i>tridentiger</i>	188
<i>Alepisaurus</i>	171	<i>Allosmerus</i>	67
<i>asculapius</i>	171	<i>attenuatus</i>	67
<i>altivelis</i>	171	<i>Allosomus</i>	61, 64
<i>azureus</i>	171	<i>Allotis</i>	300
<i>ferox</i>	171	<i>humilis</i>	300
<i>Alepocephalidae</i>	51, 54	<i>Allotriognathi</i>	215
<i>Alepocephalus</i>	51	<i>Allurus</i>	402
<i>agassizii</i>	51	<i>almeida</i> , <i>Belone</i>	195
<i>asperifrons</i>	52	<i>Alopecias</i>	18
<i>bairdii</i>	52	<i>vulpes</i>	18
<i>convexifrons</i>	52	<i>Alopias</i>	18
<i>fundulus</i>	52	<i>macrourus</i>	18
<i>macropterus</i>	53	<i>vulpinus</i>	18
<i>productus</i>	51	<i>Alopiidae</i>	18
<i>rostratus</i>	51	<i>Alosa</i>	42
<i>tenebrosus</i>	52	<i>alabamæ</i>	43
<i>Aleposomus</i>	53	<i>apicalis</i>	43
<i>copei</i>	53	<i>bishopi</i>	43
<i>aletes</i> , <i>Hudsonius</i>	132	<i>clupea</i>	42
<i>aleutensis</i> , <i>Acipenser</i>	34	<i>cyanonoton</i>	42
<i>Lyconectes</i>	471	<i>lineata</i>	42
<i>aleutianus</i> , <i>Sebastes</i>	365	<i>menhaden</i>	44
<i>Zalopyr</i>	365	<i>ohiensis</i>	42
<i>aleutica</i> , <i>Raja</i>	26	<i>præstabilis</i>	42
<i>aleuticus</i> , <i>Cottus</i>	385	<i>sapidissima</i>	42
<i>Sebastesomus</i>	365	<i>teres</i>	46
<i>Thecopterus</i>	392	<i>alosoides</i> , <i>Amphiodon</i>	41
<i>alexandri</i> , <i>Acipenser</i> (<i>Antaceus</i>).....	34	<i>alpenæ</i> , <i>Leucichthys</i>	63
<i>Rosicola</i>	365	<i>Alpharzia</i>	24
<i>Sebastes</i>	365	<i>Alphestes</i>	312
<i>alexandrinii</i> , <i>Orthogoriscus</i>	503	<i>afæ</i>	312
<i>Alexurus</i>	437	<i>chloropterus</i>	312
<i>armiger</i>	437	<i>lightfooti</i>	313
<i>alfari</i> , <i>Cichlasoma</i>	419	<i>multiguttatus</i>	313
<i>Parapetenia</i>	419	<i>Alpismaris</i>	163
<i>Alfaro</i>	193	<i>risso</i>	163
<i>acutiventralis</i>	193	<i>alta</i> , <i>Yuriria</i>	137
<i>acutiventris</i>	193	<i>altavela</i> , <i>Pteroplatea</i>	29
<i>cultratus</i>	193	<i>Raja</i>	29
<i>alfredi</i> , <i>Kryptophanaron</i>	234	<i>alternana</i> , <i>Scarus</i>	434
<i>Algansea</i>	115	<i>alternata</i> , <i>Perca mitchilli</i>	307
<i>affinis</i>	116	<i>alticolus</i> , <i>Catostomus</i>	105
<i>antica</i>	122	<i>Alticus</i>	463
<i>bicolor</i>	122	<i>saltatorius</i>	463
<i>dugesi</i>	116	<i>alticus</i> , <i>Salarias</i>	463
<i>formosa</i>	122	<i>altifrons</i> , <i>Astatheros</i>	420
<i>lacustris</i>	116	<i>Heros</i>	420
<i>obesa</i>	122	<i>altipinna</i> , <i>Belone</i>	197
<i>rubescens</i>	116	<i>altipinnis</i> , <i>Alburnellus</i>	127
<i>sallæi</i>	116	<i>Hydrophlox</i>	127
<i>stigmatura</i>	116	<i>Loricaria</i>	162
<i>tarascorum</i>	116	<i>Micropogon</i>	349
<i>tincella</i>	115	<i>altivelis</i> , <i>Alepisaurus</i>	171
<i>Algoma</i>	144	<i>Corallicola</i>	456
<i>amara</i>	144	<i>Cremnobates</i>	456
<i>alia</i> , <i>Tautoga</i>	424	<i>Sebastolobus</i>	364
<i>alia</i> , <i>Acanthurus</i>	363	<i>Serranus</i>	310
<i>alicia</i> , <i>Squalus</i>	119	<i>altus</i> , <i>Bubalichthys</i>	102
<i>aliciolus</i> , <i>Trachurus</i>	279	<i>Chorinemus</i>	278
<i>Alinectes</i>	402	<i>Hudsonius</i>	137
<i>alipes</i> , <i>Salmo</i>	60	<i>Oligoplites</i>	278
<i>alishostomus</i> , <i>Diapterus</i>	342	<i>Priacanthus</i>	323
<i>Allartedius</i>	377	<i>Pseudopriacanthus</i>	323
<i>corallinus</i>	377	<i>aluta</i> , <i>Sciæna</i>	346
<i>Allector</i>	484	<i>alutaceus</i> , <i>Acrocheilus</i>	112
<i>chelomæ</i>	484	<i>Alutarius amphacanthoides</i>	496
<i>allector</i> , <i>Dolopichthys</i>	609	<i>macracanthus</i>	496
<i>alleghaniensis</i> , <i>Moxostoma</i>	111	<i>obliteratus</i>	496
<i>Salmo</i>	60	<i>Alutera</i>	495
<i>alleni</i> , <i>Rathbunella</i>	452	<i>cinerea</i>	496
<i>alletteratus</i> , <i>Euthynnus</i>	258	<i>guntheriana</i>	496
<i>Scomber</i>	258	<i>monoceros</i>	496
<i>Allinectes</i>	403	<i>picturata</i>	495
<i>allisi</i> , <i>Crossias</i>	389	<i>punctata</i>	495
<i>allisoni</i> , <i>Neothunnus</i>	260	<i>Aluteres berardi</i>	496
<i>Thunnus</i>	260	<i>cuspidata</i>	495
<i>Allochir</i>	402	<i>Aluterus anginosus</i>	496
<i>Alloclinus</i>	456	<i>cultrifrons</i>	495
<i>holderi</i>	456	<i>holbrookii</i>	495

List of scientific names—Continued

	Page		Page
<i>Aluterus venosus</i>	495	<i>Amelurus nebulosus catulus</i>	154
<i>alutum</i> , <i>Acutomentum</i>	366	<i>platycephalus</i>	154
<i>alutus</i> , <i>Apogon</i>	296	<i>ponderosus</i>	152
<i>Apogonichthys</i>	296	<i>prosthistius</i>	154
<i>Nector</i>	346	<i>vulgaris</i>	153
<i>Sebastichthys</i>	366	<i>americana</i> , <i>Lucioperca</i>	282
<i>Alvarius</i>	282, 294	<i>Manta</i>	32
<i>fonticola</i>	295	<i>Morone</i>	307
<i>lateralis</i>	294	<i>Morrhua</i>	210
<i>alveata</i> , <i>Trigonorhina</i>	24	<i>Perca</i>	281, 307
<i>alveatus</i> , <i>Bathytroctes</i>	52	<i>Raia</i>	25
<i>alvifrons</i> , <i>Bathytroctes</i>	52	<i>Scorpaena</i>	393
<i>alvordii</i> , <i>Cottus</i>	385	<i>americanum</i> , <i>Apogon</i>	295
<i>Alvordius</i>	283	<i>americanus</i> , <i>Acanthias</i>	21
<i>aspro</i>	283	<i>Alburnus</i>	350
<i>crassus</i>	283	<i>Ammodytes</i>	451
<i>evermanni</i>	284	<i>Amphiprion</i>	308
<i>evides</i>	284	<i>Apogon</i>	295
<i>guntheri</i>	283	<i>Balistes</i>	493
<i>macrocephalus</i>	284	<i>Blennius</i>	473
<i>maculatus</i>	283	<i>Cyprinus</i>	115, 350
<i>maxinkuckiensis</i>	284	<i>Enchelyopus</i>	213
<i>ouachite</i>	284	<i>Eques</i>	352, 353
<i>peltatus</i>	283	<i>Esox</i>	172, 173
<i>phoxocephalus</i>	284	<i>Esox lucius</i>	173
<i>roanoka</i>	284	<i>Hemitripterus</i>	393
<i>sellaris</i>	284	<i>Histiophorus</i>	263
<i>spillmani</i>	283	<i>Istiophorus</i>	263
<i>Alysia</i>	168	<i>Labrus</i>	424
<i>loricata</i>	168, 169	<i>Lophius</i>	504
<i>amabilis</i> , <i>Alburnus</i>	124	<i>Macrozoarces</i>	473
<i>Notropis</i>	124	<i>Menticirrhus</i>	330
<i>amara</i> , <i>Alгона</i>	144	<i>Petromyzon</i>	8
<i>Dionda</i>	144	<i>Pleuronectes</i>	227
<i>amarillas</i> , <i>Guativero</i>	309	<i>Polynemus</i>	256
<i>amarus</i> , <i>Hudsonius</i>	132	<i>Polyprion</i>	308
<i>amates</i> , <i>Phallichthys</i>	190	<i>Pseudopleuronectes</i>	227
<i>Pocilia</i>	190	<i>Scorpaena</i>	393
<i>ambassis</i> , <i>Sargus</i>	336	<i>Squalus</i>	19
<i>ambiguus</i> , <i>Lutianus</i>	327	<i>amethystino</i> , <i>Maurolicus</i>	73
<i>Merluccius</i>	214	<i>amethystinus</i> , <i>Salmo</i>	59
<i>Mesoprius</i>	327	<i>Amia</i>	38, 295
<i>Ambodon</i>	352	<i>binotata</i>	295
<i>bubalis</i>	102	<i>calva</i>	38
<i>concinus</i>	352	<i>canina</i>	38
<i>grunniens</i>	352	<i>cineria</i>	38
<i>lineatus</i>	352	<i>guadalupensis</i>	296
<i>neglectus</i>	352	<i>immaculata</i>	40
<i>saturnus</i>	348	<i>lenticinosa</i>	38
<i>Ambloplites</i>	303	<i>marmorata</i>	38
<i>cavifrons</i>	303	<i>occidentalis</i>	38
<i>rupestris</i>	303	<i>ocellicauda</i>	38
<i>amblops</i> , <i>Felichthys</i>	159	<i>ornata</i>	38
<i>Rutilus</i>	133	<i>piquotii</i>	38
<i>Trachoristes</i>	159	<i>reticulata</i>	38
<i>Amblyopsidae</i>	194	<i>retrosella</i>	295
<i>Amblyopsis</i>	194, 195	<i>subcaerulea</i>	38
<i>mexicanus</i>	448	<i>thompsoni</i>	38
<i>speleus</i>	195	<i>viridis</i>	38
<i>amblyopsis</i> , <i>Culius</i>	437	<i>Amiatus</i>	38
<i>Eleotris</i>	437	<i>calva</i>	38
<i>Amblyopus brevis</i>	448	<i>Amiichthys</i>	297
<i>sagitta</i>	448	<i>diapterus</i>	297
<i>Amblypomacentrus</i>	413	<i>Amiidae</i>	38
<i>Amblyraja</i>	24, 25	<i>Amitra</i>	404, 405
<i>amblyrhynchus</i> , <i>Caranx</i>	271	<i>liparina</i>	404, 405
<i>Hemicaranx</i>	271	<i>Amitrichthys</i>	404
<i>Amblyscion</i>	344	<i>Amitrus</i>	404
<i>argenteus</i>	344	<i>Amiurus</i>	153
<i>Ameiuridae</i>	151	<i>brachyacanthus</i>	154
<i>Ameiurus</i>	153	<i>brunneus</i>	154
<i>bolli</i>	153	<i>cragini</i>	154
<i>brachyacanthus</i>	154	<i>lophius</i>	153
<i>catas</i>	153	<i>meridionalis</i>	152
<i>dugesi</i>	153	<i>niveiventris</i>	153
<i>erebennus</i>	153	<i>obesus</i>	154
<i>lacustris okeechobensis</i>	152	<i>prosthistius</i>	154
<i>marmoratus</i>	154	<i>Ammocetes</i>	8
<i>melas</i>	154	<i>æpypera</i>	10
<i>mississippiensis</i>	154	<i>aureus</i>	10
<i>natalis</i>	153	<i>bicolor</i>	8
<i>natalis analis</i>	153	<i>borealis</i>	9, 10
<i>nebulosus</i>	154	<i>cibarius</i>	10
		<i>concolor</i>	9

List of scientific names—Continued

	Page		Page
<i>Ammocetes unicolor</i>	9	<i>analogus</i> , <i>Abudefduf</i>	415
<i>Ammocetus</i>	8	<i>Epinephelus</i>	310
<i>Ammocrypta</i>	282, 289	<i>Euchistodus</i>	415
<i>beanii</i>	289	<i>Kyphosus</i>	339
<i>clara</i>	288	<i>Pimalepterus</i>	339
<i>gelida</i>	289	<i>analostana</i> , <i>Cyprinella</i>	129
<i>vivax</i>	288	<i>Erogala</i>	129
<i>ammocryptus</i> , <i>Tetraodon</i>	499	<i>Anarhichadide</i>	472
<i>Ammodytes</i>	451	<i>Anarhichas</i>	472
<i>alascanus</i>	451	<i>lupus</i>	472
<i>americanus</i>	451	<i>orientalis</i>	472
<i>dubius</i>	451	<i>Anarmostus</i>	329
<i>personatus</i>	451	<i>Anarhichas karrak</i>	472
<i>septipinnis</i>	451	<i>latifrons</i>	472
<i>tobianus</i>	451	<i>leopardus</i>	472
<i>vittatus</i>	451	<i>lepturus</i>	472
<i>Ammodytidae</i>	451	<i>maculatus</i>	472
<i>Ammopleuropis</i>	230	<i>minor</i>	472
<i>amaneus</i> , <i>Alburnellus</i>	123	<i>strigosus</i>	472
<i>Notropis</i>	123	<i>vomerinus</i>	472
<i>Amore pinnata</i>	436	<i>Anarrhichthyidae</i>	422
<i>amorea</i> , <i>Gobius</i>	436	<i>Anarrhichthys</i>	472
<i>Amorphacephalus</i>	430	<i>felis</i>	472
<i>granulatus</i>	430	<i>ocellatus</i>	472
<i>amphacanthoides</i> , <i>Alutarius</i>	496	<i>anasimos</i> , <i>Acipenser</i> (<i>Huso</i>).....	35
<i>Amphigonopterus</i>	409	<i>Acanthias canescens</i>	161
<i>aurora</i>	409	<i>anceps</i> , <i>Cottus</i>	386
<i>Amphilophus</i>	420, 422	<i>Acanthias</i>	498
<i>frœbeli</i>	422	<i>geometricus</i>	499
<i>labiatus</i>	422	<i>(Acanthias) caudacinetus</i> , <i>Prionotus</i>	500
<i>lobochilus</i>	422	<i>Anchoa</i>	47, 50
<i>Amphiodon</i>	41	<i>Anchova</i>	47
<i>aliosides</i>	41	<i>Anchovia</i>	50
<i>Amphioxides</i>	7	<i>abbotti</i>	50
<i>Amphioxus</i>	7	<i>arenicola</i>	49
<i>amphioxys</i> , <i>Cantherines</i>	494	<i>brevirostrum</i>	51
<i>Monocanthus</i>	494	<i>chaerostoma cayorum</i>	49
<i>Amphiprion americanus</i>	308	<i>clupeoides</i>	50
<i>australis</i>	308	<i>eigenmannia</i>	50
<i>mateuelo</i>	235	<i>elongata</i>	49
<i>Amphistichus</i>	410	<i>filifera</i>	50
<i>argenteus</i>	410, 411	<i>lepidentostole</i>	49
<i>heermanni</i>	411	<i>macrolepidota</i>	50
<i>similis</i>	411	<i>parva</i>	49
<i>Amphotistius</i>	28	<i>platygeryrea</i>	49
<i>dipterurus</i>	29	<i>scitula</i>	49
<i>sabinus</i>	29	<i>trinitatis</i>	50
<i>say</i>	28	<i>anchovia</i> , <i>Sardinella</i>	43
<i>ampla</i> , <i>Makaira</i>	263	<i>Sardinia</i>	43
<i>amplexicaulis</i> , <i>Sarothrodus</i>	360	<i>Anchoviella</i>	47
<i>Amplva</i>	50, 51	<i>abotti</i>	50
<i>balboæ</i>	50	<i>arenicola</i>	49
<i>amplus</i> , <i>Scarus</i>	432	<i>argyrophana</i>	48
<i>Tetrapturus</i>	263	<i>astilbe</i>	49
<i>amplacens</i> , <i>Ophiognathus</i>	95	<i>branchiomelas</i>	49
<i>Saccopharynx</i>	95	<i>cayorum</i>	49
<i>Anableps</i>	194	<i>chaerostoma</i>	48
<i>anableps</i>	194	<i>compressa</i>	50
<i>dowei</i>	194	<i>cubana</i>	48
<i>tetraphthalmus</i>	194	<i>cultrata</i>	48
<i>anableps</i> , <i>Anableps</i>	194	<i>curta</i>	48
<i>Anacanthini</i>	202	<i>delicatissima</i>	48
<i>Anacyrtus guatemalensis</i>	98	<i>eigenmannia</i>	50
<i>anacallinus</i> , <i>Lepomis</i>	300	<i>elongata</i>	49
<i>Anago</i>	80	<i>epsetus</i>	48
<i>macurus</i>	80	<i>exigua</i>	47
<i>nitens</i>	80	<i>filifera</i>	50
<i>anago</i> , <i>Conger</i>	80	<i>guianensis</i>	49
<i>analigutta</i> , <i>Pomacentrus</i>	414	<i>helleri</i>	48
<i>analis</i> , <i>Amieurus natalis</i>	153	<i>ischana</i>	48
<i>Clinocottus</i>	390	<i>lepidentostole</i>	49
<i>Conger</i>	80	<i>lucida</i>	48
<i>Eupomacentrus</i>	413	<i>lyolepis</i>	49
<i>Hyperprosopon</i>	410	<i>miarchus</i>	47
<i>Hypocritichthys</i>	410	<i>mittchilli</i>	48
<i>Lutjanus</i>	326	<i>mundicola</i>	50
<i>Mesopomus</i>	326	<i>naso</i>	49
<i>Notacanthus</i>	76	<i>panamensis</i>	50
<i>Oligocottus</i>	390	<i>parva</i>	49
<i>Orthogoriscus</i>	503	<i>per fasciata</i>	47
<i>Pomacentrus</i>	413	<i>perthecata</i>	47
<i>Seyris</i>	274	<i>platygeryrea</i>	49
<i>Umbrina</i>	350	<i>rastralis</i>	50
		<i>robertsi</i>	49
		<i>scitula</i>	49

List of scientific names—Continued

	Page		Page
<i>Anchoviella scofieldi</i>	49	<i>Anisotremus scapularis</i>	332
<i>spinifera</i>	50	<i>serrula</i>	333
<i>trinitatis</i>	50	<i>spleniatus</i>	332
<i>Ancistrus</i>	161	<i>surinamensis</i>	332
<i>aspidolepis</i>	161	<i>tæniatus</i>	332
<i>chagresi</i>	160	<i>virginicus</i>	332
<i>guacharote</i>	161	<i>anisurum</i> , <i>Moxostoma</i>	109
<i>mediana</i>	161	<i>anisurus</i> , <i>Catostomus</i>	109
<i>medians</i>	161	<i>anjerensis</i> , <i>Gobius</i>	442
<i>planiceps</i>	161	<i>anna-carolina</i> , <i>Mugilomorus</i>	39
<i>spinosus</i>	160	<i>annæ</i> , <i>Agonus</i>	394
<i>Ancylodon</i>	354	<i>Cottus</i>	384
<i>jaculidens</i>	354	<i>annectans</i> , <i>Gambusia</i>	187
<i>parvipinnis</i>	353	<i>annectens</i> , <i>Coccolus</i>	217
<i>ancylodon</i> , <i>Lonchurus</i>	354	<i>Gambusia</i>	187
<i>Macrodon</i>	354	<i>Priapichthys</i>	187
<i>Ancylopsetta</i>	224	<i>annectens hesperis</i> , <i>Priapichthys</i>	187
<i>dendritica</i>	224	<i>annularis</i> , <i>Centropristis</i>	319
<i>quadrocellata</i>	224	<i>Naucleus</i>	278
<i>andreae</i> , <i>Rhinoscopus</i>	168	<i>Pomoxis</i>	304
<i>Scopelus</i>	168	<i>Sparus</i>	338
<i>androsiensis</i> , <i>Gobiesox</i>	489	<i>annulata</i> , <i>Melanura</i>	174
<i>Angelichthys</i>	361	<i>annulatum</i> , <i>Exoglossum</i>	146, 174
<i>ciliaris</i>	361	<i>annulatus</i> , <i>Antennarius</i>	506
<i>isabelita</i>	361	<i>Cheilichthys</i>	499
<i>townsendi</i>	361	<i>Tetrodon</i>	499
<i>angelus</i> , <i>Squatina</i>	22	<i>anogenus</i> , <i>Hybopsis</i>	136
<i>anginosus</i> , <i>Aluterus</i>	496	<i>Notropis</i>	136
<i>anglorum</i> , <i>Lampris</i>	398	<i>anolis</i> , <i>Saurus</i>	164
<i>anguiformis</i> , <i>Ophichthys</i> (<i>Sphagebranchus</i>).....	84	<i>anomala</i> , <i>Dekaya</i>	357
<i>Sphagebranchus</i>	84, 91	<i>Anomalopoda</i>	234
<i>Anguilla</i>	77	<i>anomalum</i> , <i>Camptostoma</i>	146
<i>anguilla</i>	77	<i>anomalous</i> , <i>Caulolatilus</i>	357
<i>aterrima</i>	77	<i>Rutilus</i>	146
<i>australis</i>	77	<i>Anoplogonus</i>	397
<i>blephura</i>	77	<i>Inermis</i>	398
<i>chrysopa</i>	77	<i>Anoplocheilichthys</i>	468
<i>cubana</i>	77	<i>cristagalli</i>	468
<i>latecauda</i>	77	<i>cristigalli archolepis</i>	468
<i>lutea</i>	77	<i>insignis</i>	468
<i>novae-orleansis</i>	77	<i>purpurescens</i>	468
<i>novaterae</i>	77	<i>Anoplogaster</i>	233
<i>oceanica</i>	77	<i>cornutus</i>	233
<i>punctatissima</i>	79	<i>Anoploploma</i>	373
<i>rostrata</i>	77	<i>fimbria</i>	373
<i>tenuirostris</i>	77	<i>merlangus</i>	373
<i>texana</i>	77	<i>Anoplopomidae</i>	373
<i>tyrannus</i>	77	<i>anoplos</i> , <i>Uranoscopus</i>	454
<i>wabashensis</i>	77	<i>anoplus</i> , <i>Thyriscus</i>	379
<i>xanthomelas</i>	77	<i>Anopsus</i>	8
<i>anguilla</i> , <i>Anguilla</i>	77	<i>Anosmius</i>	500
<i>Ictalurus</i>	152	<i>Anostomide</i>	100
<i>Muraena</i>	77	<i>Ansonia cuvieri</i>	264
<i>anguillarid</i> , <i>Blennius</i>	470, 473	<i>ansonii</i> , <i>Salmo</i>	55
<i>Tribranchus</i>	77	<i>Antacea</i>	10
<i>Anguillidae</i>	77	<i>Antaceus</i>	34
<i>anguilliformis</i> , <i>Pholidichthys</i>	465	<i>Anteliochimaera</i>	33
<i>Anguilloidei</i>	77	<i>chaetirhamphus</i>	33
<i>anguina</i> , <i>Muraena</i>	90	<i>Antennaria avalonis</i>	506
<i>angineus</i> , <i>Nerophis</i>	243	<i>Antennariidae</i>	504
<i>anguis</i> , <i>Lycodes</i>	473	<i>Antennarius</i>	505
<i>anguliceps</i> , <i>Macrourus</i>	206	<i>annulatus</i>	506
<i>Macrurus</i>	206	<i>astroscopus</i>	506
<i>angulifer</i> , <i>Cichlaurus</i>	416	<i>avalonis</i>	506
<i>Heros</i>	416	<i>corallinus</i>	506
<i>angulosus</i> , <i>Ballistes</i>	492	<i>inops</i>	506
<i>Canthidermis</i>	492	<i>leopardinus</i>	505
<i>angusticeps</i> , <i>Belone</i>	196	<i>multicellatus</i>	506
<i>Coregonus</i>	136	<i>nuttingii</i>	506
<i>Sphaeroides</i>	498	<i>ocellatus</i>	505
<i>Strongylura</i>	196	<i>pleurophthalmus</i>	505
<i>Tetrodon</i>	498	<i>principis</i>	505
<i>angustidens</i> , <i>Macrostoma</i>	166	<i>radiosus</i>	506
<i>angustifrons</i> , <i>Epinephelus</i>	311	<i>reticularis</i>	505
<i>Paraliparis</i>	405	<i>sanguineus</i>	505
<i>Serranus</i>	311	<i>seaber</i>	505
<i>angustimimus</i> , <i>Merluccius</i>	214	<i>semitagn</i>	506
<i>anisacanthus</i> , <i>Dolopichthys</i>	509	<i>strigatus</i>	505
<i>Anisarchus</i>	470	<i>tenebrosus</i>	505
<i>medius</i>	470	<i>tenuifilis</i>	505
<i>Anisochaetodon</i>	359	<i>tigris</i>	506
<i>Anisotremus</i>	332	<i>verrucosus</i>	506
<i>bicolor</i>	332	<i>antennatus</i> , <i>Cyclichthys</i>	502
<i>davidsonii</i>	332	<i>Diodon</i>	502
<i>interruptus</i>	332	<i>Anthias</i>	322

List of scientific names—Continued

	Page		Page
<i>Anthias aquilonarias</i>	328	<i>Apocope adobe</i>	141
<i>caballerote</i>	325	<i>carringtonii</i>	140, 141
<i>chernia</i>	311	<i>couesii</i>	141
<i>formosus</i>	330	<i>falcata</i>	141
(<i>Hemianthias</i>) <i>peruanus</i>	322	<i>henshavi</i>	140
<i>jocü</i>	325	<i>klamathensis</i>	141
<i>quartus rondeleti</i>	326	<i>nevadensis</i>	141
<i>rabirubia</i>	327	<i>nubila</i>	140
<i>saponaceus</i>	316	<i>oscula</i>	141
<i>striatus</i>	311	<i>robusta</i>	140
<i>tenuis</i>	322	<i>umatilla</i>	141
<i>vivanus</i>	322	<i>valifera</i>	141
<i>anthias</i> , <i>Labrus</i>	322	<i>vulnerata</i>	141
<i>anthracinus</i> , <i>Acipenser</i> (<i>Huso</i>).....	35	<i>yarrowi</i>	141
<i>antica</i> , <i>Algansea</i>	122	(<i>Apocope</i>) <i>nevadensis</i> , <i>Rhinichthys</i>	141
<i>anticus</i> , <i>Hesperoleucus</i>	122	<i>velifera</i> , <i>Rhinichthys</i>	141
<i>Antigonia</i>	358	<i>apoda</i> , <i>Perca</i>	325
<i>capros</i>	358	<i>Pleuronectes</i>	229
<i>Antigonidae</i>	358	<i>Apodes</i>	77
<i>antillanus</i> , <i>Conodon</i>	333	<i>apodes</i> , <i>Lutianus</i>	325
<i>antillarum</i> , <i>Caranx</i>	273	<i>Apodichthys</i>	466
<i>Chilomycterus</i>	502	<i>flavidus</i>	466, 467
<i>Cyclichthys</i>	502	<i>fucorum</i>	467
<i>Fundulus</i>	175	<i>inornatus</i>	467
<i>Sicydium</i>	447	<i>sanguineus</i>	467
<i>Talismania</i>	53	<i>univittatus</i>	467
<i>Antimora</i>	211	<i>violaceus</i>	466
<i>microlepis</i>	211	<i>virescens</i>	467
<i>rhina</i>	211	<i>apodus</i> , <i>Lutianus</i>	326
<i>rostrata</i>	211	<i>Apogon</i>	38, 295
<i>viola</i>	211	<i>alutus</i>	296
<i>antistius</i> , <i>Chænobryttus</i>	303	<i>americanum</i>	295
<i>antoniensis</i> , <i>Pimelodus</i>	153	<i>americanus</i>	295
<i>antrostomus</i> , <i>Idiacanthus</i>	70	<i>atricaudus</i>	295
<i>anuli</i> , <i>Pimphales</i>	146	<i>atrodorsatus</i>	295
<i>Apareiodon</i>	100	<i>binotatus</i>	295
<i>compressus</i>	100	<i>dovii</i>	295
<i>dariensis</i>	100	<i>guadalupensis</i>	296
<i>Apeltes</i>	239	<i>imbarbis</i>	295
<i>quadracus</i>	239	<i>maculatus</i>	295
<i>apeltes</i> , <i>Gasterosteus</i>	239	<i>moluccensis</i>	295
<i>Apeltinae</i>	239	<i>pandionis</i>	296
<i>Aphia</i>	246	<i>pigmentarius</i>	295
<i>meridionalis</i>	246	<i>retrosella</i>	295
<i>Aphanopus</i>	262	<i>rex-mullorum</i>	295
<i>carbo</i>	262	<i>ruber</i>	295
<i>minor</i>	262	<i>sellicauda</i>	295
<i>Aphododerus</i>	215	<i>apogon</i> , <i>Borophryne</i>	509
<i>cookianus</i>	215	<i>Apogonichthys</i>	296
<i>Aphoristia</i>	230	<i>alutus</i>	296
<i>atricauda</i>	231	<i>melampodus</i>	296
<i>diomedea</i>	231	<i>perdix</i>	296
<i>marginata</i>	231	<i>puncticulatus</i>	296
<i>nebulosa</i>	231	<i>stellatus</i>	296
<i>ornata elongata</i>	231	<i>strombi</i>	296
<i>pigra</i>	230	<i>Apogonidae</i>	295
<i>pusilla</i>	231	<i>Apomotis</i>	298
<i>Aphredoderidae</i>	215	<i>cyaneus</i>	298
<i>Aphredoderus</i>	215	<i>euryor</i>	299
<i>gibbosus</i>	215	<i>ischyrus</i>	299
<i>sayanus</i>	215	<i>phenax</i>	299
<i>Aphyonus</i>	484	<i>punctatus</i>	299
<i>gelatinosus</i>	484	<i>symmetricus</i>	299
<i>mollis</i>	484	<i>appendiculatus</i> , <i>Centropomus</i>	305
<i>apia</i> , <i>Pirati</i>	313	<i>Exocoetus</i>	201
<i>apiarius</i> , <i>Saranus</i>	308	<i>appendix</i> , <i>Lepomis</i>	299
<i>apiatus</i> , <i>Lepomis</i>	299	<i>Lethenteron</i>	9
<i>apicalis</i> , <i>Alosa</i>	43	<i>Petromyzon</i>	9
<i>Echeneis</i>	449	<i>approximans</i> , <i>Polynemus</i>	256
<i>Apionichthys</i>	230	<i>Pomadasy</i>	334
<i>dumerili</i>	230	<i>Aprion</i>	15
<i>nebulosus</i>	230	<i>ariommus</i>	328
<i>Apistes exul</i>	370	<i>aprior</i> , <i>Gerres</i>	342
<i>Aplesion</i>	290, 298	<i>Aprionodon</i>	15
<i>pottsii</i>	290	<i>isodon</i>	15
<i>Aplites</i>	298	<i>punctatus</i>	15
<i>Aplodinotus</i>	352	<i>Apristurus</i>	12
<i>grunniens</i>	352	<i>brunneus</i>	12
<i>neglectus</i>	352	<i>profundorum</i>	12
<i>Aplodon</i>	339	<i>Aprodon</i>	474
<i>margaritifera</i>	339	<i>corteziana</i>	474
<i>Aplurus</i>	261	<i>cortezianus</i>	474
<i>simplex</i>	261	<i>Aprolepis</i>	444
<i>Apocope</i>	140	<i>barbarae</i>	444

List of scientific names—Continued

	Page		Page
<i>Apseudobranchius</i>	354	<i>arctifrons</i> , <i>Calamus</i>	337
<i>Apsiccephalus</i>	499	<i>Citharichthys</i>	219
<i>Apsilus dentatus</i>	328	<i>Arctoscopus</i>	357
<i>Apterichthys</i>	84	<i>japonicus</i>	357
<i>selachops</i>	84	<i>Arctozenus</i>	165
<i>Apteronotus</i>	101	<i>borealis</i>	165
<i>passan</i>	101	<i>coruscans</i>	165
<i>rostratus</i>	101	<i>arctum</i> , <i>Siphostoma</i>	242
<i>Apterurus</i>	31	<i>arcturus</i> , <i>Salmo</i>	61
<i>fabroni</i>	31	<i>Salvelinus</i>	61
<i>Apthalmichthys</i>	89	<i>aretus</i> , <i>Syngnathus</i>	242
<i>caribbeus</i>	89	<i>arcuatum</i> , <i>Haemulon</i>	330
<i>javanicus</i>	89	<i>Hyperprosopon</i>	410
<i>Aptocyclus</i>	398	<i>arcuatus</i> , <i>Bathygadus</i>	202
<i>ventricosus</i>	398	<i>Chaetodon</i>	360
<i>apua</i> , <i>Bodianus</i>	313	<i>Gadomus</i>	202
<i>Trisotropis venenosus</i>	313	<i>Pomacanthus</i>	360
<i>apus</i> , <i>Platytrichtes</i>	53	<i>ardens</i> , <i>Catostomus</i>	105
<i>aquaduleis</i> , <i>Gymnothorax</i>	93	<i>Hypsilepis</i>	126
<i>aqua-duleis</i> , <i>Murena</i>	91, 93	<i>Lythrurus</i>	126
<i>Rabula</i>	91	<i>ardeola</i> , <i>Belone</i>	195
<i>aquila</i> , <i>Raia</i>	31	<i>ardesiaca</i> , <i>Gila</i>	118
<i>Raja</i>	31	<i>ardesiacus</i> , <i>Lepomis</i>	301
<i>Sciæna</i>	61	<i>arenaceus</i> , <i>Citharichthys</i>	219
<i>aquilarum</i> , <i>Salmo</i>	58	<i>arenata</i> , <i>Umbriana</i>	351
<i>aquilonaris</i> , <i>Anthias</i>	328	<i>arenatus</i> , <i>Arius</i>	150
<i>Etelides</i>	328	<i>Priacanthus</i>	323
<i>aquosus</i> , <i>Pleuronectes</i>	217	<i>Rhinichthys</i>	140
<i>arabatch</i> , <i>Salmo</i>	55	<i>Rypiticus</i>	316
<i>arabicus</i> , <i>Chanos</i>	40	<i>arenicola</i> , <i>Anchovia</i>	49
<i>aracanga</i> , <i>Pseudoscarus</i>	434	<i>Anchoviella</i>	49
<i>Scarus</i>	433, 434	<i>Carapuz</i>	486
<i>aracansanus</i> , <i>Notropis</i>	124	<i>Fierasfer</i>	486
<i>Notropis telecopus</i>	124	<i>Gillellus</i>	455
<i>ara</i> , <i>Pristigaster</i>	12	<i>areosus</i> , <i>Gadus</i>	210
<i>arara</i> , <i>Atherina</i>	246	<i>argalus</i> , <i>Belone</i>	196
<i>aracopus</i> , <i>Catostomus</i>	106	<i>Strongylura</i>	196
<i>aramaca</i>	218	<i>arge</i> , <i>Alburnellus</i>	124
<i>aramaca</i> , <i>Hemirhombus</i>	218	<i>Chirostoma</i>	250
<i>Pleuronectes</i>	218	<i>Eslopsarum</i>	250
<i>Rhombus</i>	218	<i>Kuhlia</i>	305
<i>arangoi</i> , <i>Chærojulis</i>	426	<i>Notropis</i>	124
<i>arara</i> , <i>Hemulon</i>	330	<i>argentata</i> , <i>Ciliata</i>	208
<i>Serranus</i>	311	<i>Motella</i>	208
<i>aratus</i> , <i>Mesoprius</i>	327	<i>argentatus</i> , <i>Astyanax</i>	96
<i>Raizero</i>	327	<i>Platygyrus</i>	128
<i>Arbaciola</i>	490	<i>argentea</i> , <i>Bathyclupea</i>	281
<i>eos</i>	491	<i>Murena</i>	77
<i>humeralis</i>	490	<i>Sciæna</i>	334
<i>rhessodon</i>	490	<i>Selene</i>	275
<i>rupestris</i>	491	<i>Sphyraena</i>	255
<i>zebra</i>	491	<i>Steindachneria</i>	203
<i>arborifer</i> , <i>Linophryne</i>	510	<i>argenteolus</i> , <i>Lychnopoles</i>	72, 73
<i>arcansanum</i> , <i>Etheostoma zonale</i>	289	<i>argenteum</i> , <i>Hyperprosopon</i>	410
<i>Nanostoma</i>	289	<i>punctatum</i> , <i>Hyperprosopon</i>	410
<i>arcansanus</i> , <i>Notropis</i>	124	<i>argenteus</i>	9
<i>Notropis telecopus</i>	124	<i>Amblyseion</i>	344
<i>Archaulus</i>	377	<i>Amphistichus</i>	411
<i>biseriatus</i>	377	<i>Brycon</i>	98
<i>archidium</i> , <i>Elattarchus</i>	345	<i>Centronotus</i>	277
<i>Odontoscion</i>	345	<i>Diplodus</i>	338
<i>Archocentrus</i>	420	<i>Eucinostomus</i>	340
<i>centrarchus</i>	420	<i>Fario</i>	55
<i>immaculatus</i>	420	<i>Hyperprosopon</i>	410
<i>nigrofasciatus</i>	420	<i>Kurtus</i>	323
<i>spilurus</i>	420	<i>Larimus</i>	344
<i>spinosissimus</i>	420	<i>Leuciscus</i>	117
<i>archolepis</i> , <i>Anoplarchus cristigalli</i>	468	<i>Micropogon</i>	349
<i>Anoplarchus purpureus</i>	468	<i>Petromyzon</i>	9
<i>Archomenidia</i>	248	<i>Sarchirus</i>	36
<i>sallei</i>	248	<i>Sargus</i>	338
<i>Archopercæ</i>	313	<i>Saurus</i>	277
<i>Archoplites</i>	303	<i>Sparus</i>	337
<i>interruptus</i>	303	<i>Synodus</i>	40
<i>Archosargus</i>	338	<i>Trachinotus</i>	277
<i>aries</i>	338	<i>Trichiurus</i>	262
<i>probatoccephalus</i>	338	<i>Argentina</i>	68
<i>arctica</i> , <i>Liparis</i>	400	<i>carolina</i>	39
<i>arcticum</i> , <i>Benthosema</i>	170	<i>glossodontia</i>	40
<i>arcturus</i> , <i>Chromostoma</i>	504	<i>pennanti</i>	73
<i>Galeocerdo</i>	14	<i>pretiosa</i>	67
<i>Gymnogaster</i>	216	<i>sialis</i>	68
<i>Salmo</i>	66	<i>silus</i>	68
<i>Scopelus</i>	170	<i>sphyraena</i>	68
<i>Equalus</i>	14	<i>striata</i>	68
<i>Trachipterus</i>	216	<i>syrtemium</i>	68

List of scientific names—Continued

	Page		Page
Argentinidae.....	68	Arius commersonii.....	149
argentinus, Pimelodus.....	152	dasycephalus.....	150
argentissimus, Gasterosteus.....	238	elatturus.....	149
Plagopterus.....	147	emmelane.....	151
argentiventris, Lutianus.....	326	equestris.....	149
Mesoprion.....	326	evermanni.....	151
argentosa, Dionda.....	144	furthi.....	151
Arges.....	159	grandicassis.....	149
sabalo.....	159	guatemalensis.....	150
Argo.....	265	hypophthalmus.....	151
steindachneri.....	265	insculptus.....	149
argus, Cephalopholis.....	309	kessleri.....	149
Gymnothorax (Limamurana).....	90	laticeps.....	150
Murana.....	90	liropus.....	151
Pleuronectes.....	217	melanopus.....	150
Squalus.....	12	milberti.....	149
argyrea, Scarcina.....	262	multiradiatus.....	151
Sciæna.....	341	osculus.....	149
Argyreus.....	275	planiceps.....	149
brevoortii.....	276	platypogon.....	149
cæstedii.....	275	seemani.....	150
pacificus.....	276	spixii.....	150
setipinnis.....	275	steindachneri.....	151
unimaculatus.....	275	taylori.....	151
vomere.....	275	truncatus.....	149
argyreus, Pogonichthys.....	116	arizone, Pantosteus.....	104
Argyreus.....	139	Arlina.....	287
dulcis.....	139	atripinnis.....	286
notabilis.....	141	effulgens.....	287
nubilus.....	140	arlingtonia, Gambusia.....	177
osculus.....	141	armata, Bairdiella.....	346
rubripinnis.....	128	Sciæna.....	273
argyreus, Fario.....	55	armatus, Aspidophorus.....	395
Argyriosus brevoortii.....	276	Centropomus.....	306
filamentosus.....	275	Dactylobatus.....	27
mauriceii.....	275	Leptocottus.....	390
mitchilli.....	275	Nector.....	346
setifer.....	275	Nematonurus.....	203
triacanthus.....	275	Serranus.....	313
argyritis, Hybodontus.....	144	armiger, Alexurus.....	437
argyroleucos, Bodianus.....	345	arnillo, Mesoprion.....	328
argyro-leucos et exiguus, Bodianus.....	345	Arnion.....	252
Argyropelecus.....	74	Arnoglossus ventralis.....	220
affinis.....	74	arnoldi, Limia.....	191
durvillii.....	74	Arothron.....	499
hemigymnus.....	74	erethizon.....	500
lychnus.....	74	testudinatus.....	499
offersi.....	74	Artedi.....	8
argyrophana, Anchoviella.....	48	artedi, Coregonus.....	63
argyrophanus, Engraulis.....	48	Leucichthys.....	63
argyrops, Sparus.....	336	Rhampichthys.....	101
argyrosoma, Damalichthys.....	412	artedi bisselli, Leucichthys.....	63
Argyrosomus.....	61	Artediellus.....	377
alascanus.....	62	atlanticus.....	377
erianis.....	63	camchaticus.....	378
hoylei.....	64	clarki.....	377
huroniensis.....	62	micanthus.....	378
johannæ.....	63	pacificus.....	377
nigripinnis.....	62, 63	unicinatus.....	377
sisco.....	62	artedii, Polynemus.....	256
tulibeæ.....	64	Artedius.....	377
zonithicus.....	64	asperulus.....	376
argyrosomus, Damalichthys.....	412	fenestralis.....	376
Argyrosoma.....	451	lateralis.....	377
argyrurus, Coryphæna.....	265	notospilotus.....	376
argyrus, Pimelodus.....	152	pugetensis.....	375
aries, Archosargus.....	338	quadriseriatus.....	376
Sargus.....	338	artesia, Nivicola.....	292
Ariidae.....	147	Pœcilichthys.....	292
Ariodes.....	150	Arthropallus.....	184
ariommus, Aprion.....	328	arubensis, Pœcilia vanderpolli.....	193
Paranotropsis.....	125	arundinaceus, Syngnathus.....	240
Photogenus.....	125	ascanii, Silus.....	68
Ariopsis.....	149	Ascelichthys.....	392
Ariosoma.....	79	rhodorus.....	392
caudale.....	80	ascendens, Syngnathus.....	241
gilberti.....	80	ascensionis, Holocentrus.....	235
opisthophthalmus.....	80	Percæ.....	235
Arius.....	150	ascita, Pimelodus.....	158
alatus.....	148	asellus, Cheilichthys.....	500
arenarius.....	150	Asematicthys.....	390
arenatus.....	150	taylori.....	390
arius.....	150	asper, Auchenopteris.....	456
assimilis.....	150	Cottus.....	383
brandti.....	148	Diodon.....	501
caeruleus.....	150		

List of scientific names—Continued

	Page		Page
asper, Exerpes.....	456	Asthenurus.....	208
Hexagrammos.....	373	atrinipinnis.....	208
Macrurus.....	203	astilbe, Anchoviella.....	49
Pleuronectes.....	227	Stolephorus.....	49
Taractes.....	265	astillero.....	49
aspera, Limanda.....	227	astori, Petromyzon.....	10
asperifrons, Alepocephalus.....	52	Astrapogon.....	296
asprerrima, Cottus.....	384	stellatus.....	296
asprerrimus, Balistes.....	492	Astroblepidæ.....	159
Cottus.....	384	Astroblepus.....	159
Myliobatis.....	30	grixolvi.....	159
Pteromyxus.....	30	pirrensis.....	160
asperus, Serranus.....	310	Astrodermus.....	264
asperulus, Arctidius.....	376	guttatus.....	264
Aspicottus.....	381	Astrolytes.....	376
bison.....	381	fenestralis.....	376
taurinus.....	381	Astronesthes.....	71
aspidolepis, Aneistrus.....	161	gemmifer.....	71
Chaetostomus.....	161	niger.....	71
Aspidophoroides.....	397	Astronesthes nigra.....	71
bartoni.....	397	richardsoni.....	71
groenlandicus.....	397	Astronesthidae.....	71
güntheri.....	397	Astroscopus.....	454
inermis.....	397	guttatus.....	454
monopterygius.....	397	y-græcum.....	454
olrki.....	397	zephyreus.....	454
tranquebar.....	397	astroscopus, Antennarius.....	506
Aspidophoroididae.....	397	Astyanax.....	96
Aspidophorus.....	395	æneus.....	96
armatus.....	395	argentatus.....	96
deagonus.....	394	brevioortil.....	97
europæus.....	395	emperador.....	97
quadricornis.....	393	fasciatus.....	97
spinosissimus.....	94	macrophthalmus.....	97
aspidurus, Urolophus.....	30	mexicanus.....	96
Urotrygon.....	30	nasutus.....	97
Aspisurus.....	362	petenensis.....	97
asprella, Crystallaria.....	288	ruberrimus.....	97
asprellus, Pleurolepis.....	288	scabripinnis.....	97
Radulinus.....	379	Asymmetron.....	7
asprigenis, Pencilichthys.....	291	lucayanum.....	7
aspro, Alvordius.....	283	atanianus, Chaetodon.....	360
assimilis, Arius.....	150	Sarothrodus.....	360
Galeichthys.....	150	atchafalaya, Signalosa.....	46
Astatheros.....	420, 422	vanhyningi, Signalosa.....	47
altifrons.....	420	atelaspi, Acipenser (Huso).....	35
basilaris.....	421	Atelaxia.....	216
citrinellus.....	422	Ateleobranchium.....	207
dorsatus.....	420	pterotum.....	207
erythræum.....	422	aterrima, Anguilla.....	77
evermanni.....	420	athabasca, Leucichthys.....	62
globosum.....	421	Atheresthes.....	221
granadense.....	421	stomias.....	221
hedricki.....	421	Atherina.....	246
heterodontus.....	420	arua.....	246
laure.....	421	boseli.....	247
lethrinus.....	420	boyeri.....	246
longimanus.....	420	brownii.....	48
maculicauda.....	421	carolina.....	246
margaritifer.....	421	evermanni.....	246
montezuma.....	421	harringtonensis.....	246
oblongus.....	421	hepsetus.....	246, 247
octofasciatus.....	421	humboldtiana.....	250
rectangularis.....	421	laticeps.....	246
robertsoni.....	420	martinica.....	248
rostratum.....	421	menidia.....	247
septemfasciatus.....	421	microps.....	246
sexfasciatus.....	421	microstoma.....	246
tuyrensis.....	421	mordax.....	67
asterias, Blennius.....	461	notata.....	247
Galeus.....	13	sardina.....	247
Mustelus.....	13	stipes.....	246
Spheroides.....	498	tæniata.....	246
Spheroides.....	498	veliana.....	246
Urolophus.....	30	viridescens.....	247
asterius, Blennius.....	461	vomerina.....	250
Asternopteryx.....	468	Atherinella.....	249
gunelliformis.....	468	eriarcha.....	249
Asternotremis.....	215	evermanni.....	248
mesolema.....	215	panamensis.....	249
Asterotheca.....	396	Atherinichthys.....	250
almacana.....	396	albus.....	251
infrapinnata.....	396	brevix.....	250
pentacantha.....	396	gracilis.....	247
		grandoculis.....	251

List of scientific names—Continued

	Page		Page
<i>Atherinichthys guatemalensis</i>	249	<i>atricaudus</i> , Apogon.....	295
<i>pachylepis</i>	249	<i>Symphurus</i>	231
<i>sallæ</i>	248	<i>atrilabiatus</i> , <i>Callionymus</i>	450
<i>Atherinidæ</i>	246	<i>atrilatus</i> , <i>Zygonectes</i>	185
<i>Atherinoides</i>	250	<i>atrilobata</i> , <i>Chromis</i> (<i>Furcaria</i>).....	412
<i>atherinoides</i> , <i>Chriodorus</i>	199	<i>Furcaria</i>	412
<i>Clupea</i>	51	<i>atrimana</i> , <i>Monolene</i>	220
<i>Notropis</i>	123	<i>atrimanus</i> , <i>Caranx</i>	271
<i>Pterengraulis</i>	51	<i>Hemicaranx</i>	271
<i>Atherinomorus</i>	246	<i>Parasphyrænopis</i>	297
<i>Atherinops</i>	252	<i>atrimentis</i> , <i>Menidia peninsulæ</i>	247
<i>affinis</i>	252	<i>atripectus</i> , <i>Porogadus</i>	482
<i>insularum</i>	252	<i>atripes</i> , <i>Ditrema</i>	411
<i>cedrosensis</i>	252	<i>Lythrurus</i>	126
<i>guadalupæ</i>	252	<i>Phanerodon</i>	411
<i>oregonia</i>	252	<i>atripinnis</i> , <i>Arlina</i>	286
<i>regis</i>	252	<i>Asthenurus</i>	208
<i>Atherinopsis</i>	252	<i>Goodea</i>	183
<i>affinis</i>	252	<i>atriverter</i> , <i>Stomias</i>	69
<i>californiensis</i>	252	<i>atrocaudalis</i> , <i>Hybopsis</i>	133
<i>sonoræ</i>	252	<i>Notropis cayuga</i>	133
<i>tenuis</i>	251	<i>atrocaudus</i> , Apogon.....	295
<i>Athlennes</i>	197	<i>atro-cyaneus</i> , <i>Pomacentrus</i>	413
<i>atinga</i> , <i>Chilomycterus</i>	502	<i>atrodorsatus</i> , Apogon.....	295
<i>Diodon</i>	502	<i>atromaculata</i> , <i>Estrella</i>	287
<i>Guamaicu</i>	502	<i>atromaculatus</i> , <i>Cyprinus</i>	117
<i>atkinsi</i> , <i>Gasterosteus</i>	238	<i>Semotilus</i>	117
<i>atlantica</i> , <i>Elacate</i>	281	<i>atromaculatus thoreauanus</i> , <i>Semotilus</i>	117
<i>Emblemaria</i>	464	<i>atronasus</i> , <i>Cyprinus</i>	139, 140
<i>Scorpena</i>	370	<i>Rhinichthys</i>	140
<i>russula</i>	370	<i>atropurpureum</i> , <i>Ophidium</i>	469
<i>atlanticum</i> , <i>Oreosoma</i>	232	<i>atropurpureus</i> , <i>Epigeeichthys</i>	469
<i>Oreosoma</i>	232	<i>atrorubens</i> , <i>Sebastes</i>	365
<i>atlanticus</i> , <i>Artediellus</i>	377	<i>Zalopyr</i>	365
<i>Benthodesmus</i>	262	<i>atrovirens</i> , <i>Sebastesichthys</i>	365
<i>Bregmaceros</i>	208	<i>Zalopyr</i>	365
<i>Callorhynchus</i>	32	<i>attavilla</i> , <i>Dasyatis</i>	29
<i>Dibranchius</i>	508	<i>attenatus</i> , <i>Cyclichthys</i>	502
<i>Megalops</i>	39	<i>attenuata</i> , <i>Vinciguerrina</i>	73
<i>Neoliparis</i>	399	<i>attenuatum</i> , <i>Chirosotoma</i>	250
<i>Promethus</i>	261	<i>attenuatus</i> , <i>Allosmerus</i>	67
<i>Rupiscartes</i>	463	<i>Careproctus</i>	403
<i>Salarias</i>	463	<i>Halosaurus</i>	75
<i>Sparus</i>	310	<i>Lycodapus</i>	479
<i>Tarpon</i>	39	<i>Maurolicus</i>	73
<i>Tetragonurus</i>	269	<i>Osmerus</i>	67
<i>Thynnus</i>	260	<i>Paraliparis</i>	404
<i>atomarium</i> , <i>Sparisoma</i>	431	<i>Rhinoliparis</i>	405
<i>atomarius</i> , <i>Scarus</i>	431	<i>Attilus</i>	350
<i>Atopichthys</i>	54	<i>Atule</i>	270
<i>acus</i>	54	<i>atwoodi</i> , <i>Carcharias</i>	20
<i>cinctus</i>	54	<i>aubeenaubei</i> , <i>Etheostoma</i>	291
<i>cingulus</i>	54	<i>Oligocephalus</i>	291
<i>dentatus</i>	54	<i>aubrieti</i> , <i>Lutjanus</i>	327
<i>ensunculus</i>	54	<i>Auchenipterus</i>	456
<i>falcidens</i>	54	<i>Auchenistius</i>	457
<i>longidens</i>	54	<i>stahli</i>	457
<i>lychnus</i>	54	<i>Auchenopteris</i>	456
<i>obtusus</i>	54	<i>affinis</i>	457
<i>opichthys</i>	54	<i>albicaudus</i>	457
<i>sciarius</i>	54	<i>asper</i>	456
<i>Atopoclinidæ</i>	465	<i>cingulatus</i>	457
<i>Atopoclinus</i>	465	<i>fajardo</i>	457
<i>ringens</i>	465	<i>fasciatus</i>	457
<i>Atractoscion</i>	356	<i>grandicomis</i>	457
<i>nobilis</i>	356	<i>integripinnis</i>	457
<i>phoxocephalus</i>	356	<i>mexicanus</i>	457
<i>Atractosteus</i>	38	<i>monopthalmus</i>	456, 457
<i>lucius</i>	38	<i>nox</i>	457
<i>tristæchus</i>	38	<i>rubescens</i>	457
<i>tropicus</i>	38	<i>auctorum</i> , <i>Lobotes</i>	323
(<i>Atractosteus</i>) <i>berlandieri</i> , <i>Lepidosteus</i>	38	<i>Auctospina</i>	368
<i>ferox</i> , <i>Lepisosteus</i>	38	<i>auriculata</i>	368
<i>atramentatus</i> , <i>Symphurus</i>	231	<i>dallii</i>	369
<i>atraria</i> , <i>Percæ</i>	317	<i>audax</i> , <i>Histiophorus</i>	263
<i>Siboma</i>	119	<i>audens</i> , <i>Menidia</i>	247
<i>Tigoma</i>	119	<i>Aulastome marcgravii</i>	245
<i>atrarius</i> , <i>Pimelodus</i>	154	<i>Auliscops</i>	239
<i>Xenomystax</i>	81	<i>spinescens</i>	239
<i>atratum</i> , <i>Myctophum</i>	169	<i>auliscus</i> , <i>Siphostoma</i>	240
<i>atricauda</i> , <i>Aphoristia</i>	231	<i>Syngnathus</i>	240
<i>Hydrargira</i>	174	<i>Aulophallus</i>	190
<i>atricaudata</i> , <i>Deuterodon</i>	96	<i>elongatus</i>	190
<i>atricaudatus</i> , <i>Gephyrocharax</i>	96	<i>Aulorhynchidæ</i>	239

List of scientific names—Continued

	Page		Page
<i>Aulorhynchus</i>	239	<i>australis</i> , Esor.....	173
<i>flavidus</i>	239, 240	<i>Remilegia</i>	449
<i>Aulostoma</i>	244	<i>Teuthis</i>	362
<i>cinereum</i>	245	<i>australis</i> , <i>Icelus</i>	379
<i>coloratum</i>	245	<i>austriana</i> , <i>Myxostoma</i>	110
<i>Aulostome macleayi</i>	245	<i>austriana</i> , <i>Moxostoma</i>	110
<i>Aulostomi</i>	244	<i>Auxis</i>	259
<i>Aulostomidae</i>	244	<i>rochei</i>	259
<i>Aulostomus</i>	244	<i>thazard</i>	259
<i>chinensis</i>	244	<i>avalonis</i> , <i>Antennaria</i>	506
<i>cinereus</i>	245	<i>Averuncus</i>	395
<i>maculatum</i>	245	<i>emmelane</i>	395
<i>aurantiacus</i> , <i>Balistes</i>	495	<i>sterletus</i>	395
<i>Cottogaster</i>	284, 285	<i>averruncus</i> , <i>Kathetostoma</i>	454
<i>auratus</i> , <i>Cheilio</i>	426	<i>avitus</i> , <i>Chologaster</i>	194
<i>auriga</i> , <i>Monacanthus</i>	494	<i>avocetta</i> , <i>Nemichthys</i>	83
<i>aurantiacus</i> , <i>Hypohomus</i>	285	<i>Avocettina</i>	83
<i>aurata</i> , <i>Coryphæna</i>	265	<i>elongata</i>	83
<i>Moniana</i>	132	<i>gilli</i>	83
<i>Saleima</i>	339	<i>infans</i>	83
<i>auratum</i> , <i>Pristipoma</i>	333	<i>Awaous</i>	442
<i>auratus</i> , <i>Diapterus</i>	342	<i>nelsoni</i>	442
<i>Gadus</i>	210	<i>axillare</i> , <i>Pristipoma</i> (<i>Hæmulopsis</i>).....	333
<i>Holocentrus</i>	309	<i>axillaris</i> , <i>Boreocottus</i>	387
<i>Mullus</i>	343	<i>Brachydeuterus</i>	333
<i>barbatus</i>	343	<i>Diapterus</i>	342
<i>Notemigonus</i>	115	<i>Gerres</i>	342
<i>Psenes</i>	298	<i>Myoxocephalus</i>	387
<i>Scomber</i>	258	<i>axinophrys</i> , <i>Nystes</i>	395
<i>aurea</i> , <i>Loricaria</i>	162	<i>Axyrias</i>	377
<i>aureolum</i> , <i>Moxostoma</i>	110	<i>harringtoni</i>	377
<i>aureolum</i> , <i>Catostomus</i>	109, 110	<i>aya</i> , <i>Chaetodon</i>	360
<i>Diapterus</i>	342	<i>Lutianus</i>	326
<i>Gerres</i>	342	<i>Neomænis</i>	453
<i>Salvelinus</i>	60	<i>Aylopon</i>	322
<i>Xenotis</i>	300	<i>martinicensis</i>	320
<i>aureo-ruber</i> , <i>Sparus</i>	432	<i>ayresi</i> , <i>Acipenser</i>	34
<i>aureoviridis</i> , <i>Sphyræna</i>	305	<i>Centropomus</i>	318
<i>aureus</i> , <i>Ammocætes</i>	10	<i>Lepidosteus</i>	37
<i>Carangus</i>	272	<i>Parophrys</i>	225
<i>Caranx</i>	270	<i>Ayresia</i>	413
<i>Chaetodon</i>	360	<i>punctipinnis</i>	413
<i>Fundulus</i>	177	<i>ayresii</i> , <i>Lampetra</i>	10
<i>Heros</i>	422	<i>Petromyzon</i>	10
<i>Sparus</i>	302	<i>Sebastodes</i>	367
<i>Thorichthys</i>	422	<i>Sebastomus</i>	367
<i>auriculata</i> , <i>Auctospina</i>	368	<i>Azevia</i>	221
<i>Mobula</i>	31	<i>panamensis</i>	221
<i>auriculatus</i> , <i>Sebastes</i>	368	<i>querna</i>	221
<i>aurifrons</i> , <i>Gnathypops</i>	453	<i>azoreica</i> , <i>Coryphæna</i>	265
<i>auriga</i> , <i>Chaetodon</i>	359	<i>Azteca</i>	143
<i>Dules</i>	330	<i>Aztecula</i>	143
<i>aurita</i> , <i>Sardinella</i>	43	<i>lerinae</i>	143
<i>Seleima</i>	339	<i>mexicana</i>	143
<i>auritus</i> , <i>Brachydeuterus</i>	333	<i>vittata</i>	143
<i>Labrus</i>	299	<i>aztecus</i> , <i>Notropis</i>	143
<i>Lepomis</i>	299	<i>azurea</i> , <i>Hermosilla</i>	340
<i>Macrodon</i>	99	<i>azureus</i> , <i>Alepisaurus</i>	171
<i>aurofrenatum</i> , <i>Sparisoma</i>	432	<i>Carcharias</i>	16
<i>aurofrenatus</i> , <i>Scarus</i>	432	<i>Galeichthys</i>	150
<i>auroguttatus</i> , <i>Zygonectes</i>	177	<i>Azurina</i>	412
<i>aurolateratum</i> , <i>Myctophum</i>	170	<i>hirundo</i>	412
<i>aurolineatum</i> , <i>Bathystoma</i>	331	<i>azurissimus</i> , <i>Microspathodon</i>	416
<i>Hæmulon</i>	331		
<i>auro-punctatus</i> , <i>Callyodon</i>	431	<i>babecki</i> , <i>Rosicola</i>	365
<i>auropunctatus</i> , <i>Cryptotomus</i>	431	<i>Sebastodes</i>	365
<i>aurora</i> , <i>Abeona</i>	409	<i>bacalau</i> , <i>Gobius</i>	441
<i>Amphigonopterus</i>	409	<i>badius</i> , <i>Euctenogobius</i>	441, 442
<i>Caprophonus</i>	358	<i>Fundulus heteroclitus</i>	176
<i>Catostomus</i>	106	<i>Rhinichthys</i>	140
<i>Eosebastes</i>	366	<i>Bagre</i>	147
<i>Fario</i>	55	<i>bahiensis</i>	148
<i>Sebastichthys</i>	366	<i>eydouxii</i>	148
<i>aurorubens</i> , <i>Centropomus</i>	327	<i>isthmensis</i>	148
<i>Rhomboplites</i>	323	<i>marina</i>	148
<i>aurovittatus</i> , <i>Mesopomus</i>	327	<i>panamensis</i>	148
<i>Ausonia</i>	264	<i>pinnimaculatus</i>	148
<i>cuvieri</i>	264	<i>scutatus</i>	148
<i>australasius</i> , <i>Pneumatophorus</i>	258	<i>secundæ</i> , etc.....	153
<i>Scomber</i>	258	<i>bagre</i> , <i>Silurus</i>	147
<i>australe</i> , <i>Etheostoma</i>	293	<i>Bagrus proops</i>	148
<i>Zophendum</i>	116	<i>sundiacus</i>	149
<i>australis</i> , <i>Amphiprion</i>	308	<i>(Sciaenidae)</i> <i>emphysetus</i>	148
<i>Clinocottus</i>	390	<i>bahamensis</i> , <i>Piscis viridis</i>	432
<i>analis</i>	390	<i>Unicornis piscis</i>	405
<i>Echeneis</i>	449		

List of scientific names—Continued

	Page		Page
bahamensis, Vulpes.....	39	Balistes kleinii.....	496
bahianus, Acanthurus.....	363	laevis.....	495
Rhombus.....	217	liberiensis.....	492
bahiensis, Bagre.....	148	lineopunctatus.....	493
Cypselurus.....	202	linguatus.....	496
Engraulis.....	40	longus.....	493
Exocoetus.....	202	macrops.....	492
Galeichthys.....	148	macropterus.....	449
baileyi, Cyprinodon.....	182	maculatus.....	493
Cyprinodon maculatus.....	182	melanopterus.....	493
bailloni, Caesiomorus.....	276	mento.....	493
Trachinotus.....	276	monoceros.....	495, 496
Baillonus.....	276	monoceros unicolor.....	496
bailloui, Gasterosteus.....	237	moribundus.....	492
Baiodon.....	417	naufragium.....	491
fasciatus.....	417	nigra.....	493
Baione.....	60	nitidus.....	493
fontinalis.....	60	notatus.....	493
Baiostoma.....	229	piceus.....	493
brachialis.....	230	polyepis.....	492
bairdi, Acipenser.....	34	powelli.....	492
Callionymus.....	400	punctatus.....	492
Cottus.....	383	radula.....	493
Macrourus.....	205	ringens.....	493
bairdiana, Sphyraenops.....	297	rufus.....	493
bairdianus, Sphyraenops.....	297	sandwichensis.....	493, 494
Syngnathus.....	242	sandwichiensis.....	494
Syrtetes.....	242	scapus.....	494
Bairdiella.....	345	schœpfi.....	495
armata.....	346	scolopax.....	246
bedoti.....	345	scripta.....	495
chrysur.....	345	scriptus.....	495
ensifera.....	345	sobaco.....	492
icistia.....	345	spilotopterygius.....	492
ronchus.....	346	sufflamen.....	492
verre-ertus.....	346	teniopus.....	491
bairdii, Alepocephalus.....	52	triangularis.....	492
Bathymyzon.....	8	unicornu.....	496
Cottus.....	385	verres.....	492
Gasterostomus.....	95	vetula.....	491
Mitchillina.....	52	willuhgbeii.....	493
Petromyzon (Bathymyzon).....	8	Balistidae.....	491
Pomacentrus.....	415	Balsadichthys.....	183
Salmo.....	61	whitei.....	183
Stegastes.....	415	balsana, Thyriina.....	249
Bajacalifornia.....	53	balsanus, Istalarius.....	151
burragei.....	53	Melaniris.....	248
Bajonado.....	336	balsas, Pæciopsis.....	189
bajonado, Calamus.....	336	balteatus, Cyprinus (Abramis).....	118
Sparus.....	336	Eques.....	353
balantiophthalmus, Scomber.....	271	Heros.....	418
balao, Hemiramphus.....	199	Pomacanthus.....	360
balboæ, Amplova.....	50	Richardsonius.....	118
Fundulus.....	179	Theraps.....	418
Oxyzygonectes.....	179	Thynnus.....	260
baldwini, Prionodes.....	319	Upeneus.....	343
balearica, Muræna.....	79	banana, Butyrinus.....	39, 40
balearicum, Ophisoma.....	80	Chonophorus.....	442
baleatus, Cyprinus (Abramis).....	117	Gobius.....	442
balias, Chirus.....	374	bancrofti, Torpedo.....	27
Balistes.....	491	Barathrodemus.....	482
americanus.....	493	manatinus.....	482
angulosus.....	492	Barathronus.....	484
asperrimus.....	492	bicolor.....	484
aurantiacus.....	495	barbarie, Aprolepis.....	444
barbatus.....	496	Siphostoma.....	240
bellus.....	491	Syngnathus.....	240
bridé.....	492	barbata, Brotula.....	479
broceus.....	494	Lonchirus.....	352
buniva.....	491, 493	Loricaria.....	161, 162
capistratus.....	492	Pallasina.....	394
caprinus.....	491	Rhandia.....	158
capriseus.....	491	barbatula, Læmonema.....	213
carolinensis.....	491	barbatulum, Læmonema.....	213
chinensis.....	494	barbatum, Echiostoma.....	70
cicatricatus.....	493	Lyonema.....	476
ciliaris.....	492	Ophidion.....	485
ciliatus.....	494	barbatus, Balistes.....	496
curassavicus.....	493	Chauiodius.....	71
equestris.....	491	Enechelyopus.....	479
forcipatus.....	492	barbatus, Mullus.....	343
fuliginosus.....	491	Siphagonus.....	394
guttatus.....	492	barbatus auratus, Mullus.....	343
heckeli.....	493	barbiger, Macrourus.....	205
hispidus.....	494	Macrurus.....	205

List of scientific names—Continued

	Page		Page
barbiger, Peristedion	406	Bathylagus milleri	69
Peristedium	406	pacificus	69
barbuda, Liza	496	Bathymaster	451
Barbulifer	446	caeruleofasciatus	451
cauthocæus	446	hypoplectus	452
papillosus	446	jordani	452
barbulifer, Rhinoliparis	405	signatus	451
bardus, Minomus	104	bathymaster, Bregmaceros	208
barkani, Agonus	394	Bathymasteridæ	451
barnharti, Achirus	230	Bathymyzon	8
baronis-mülleri, Pimelodus	157	bairdii	8
Rhamdia	157	(Bathymyzon) bairdii, Petromyzon	8
barracuda, Esox	255	Bathynectes	480
Sphyræna	255	compressus	480, 481
barracudina, Paraliparis	165	gracilis	481
barrati, Etheostoma	294	laticeps	483
Hololepis	294	Bathyonus	480
barreto, Gobioides	448	catena	481
bartholomæi, Caranx	272	pectoralis	482
Elaphotoxon	272	tænia	481
bartoni, Acara	419	Bathyphoxis	70
Aspidophoroides	397	ferox	70
Chirostoma	250	Bathypasma	401
Cylindrosteus	37	ovigerum	401
Parapetenia	419	bathypbila, Cyclothone	72
Bascanichthys	86	bathypbillum, Neostoma	72
bascanium	86	Bathypteroidæ	166
bascanoides	86	Bathypterois	166
cylindricus	86	longifilis	166
panamensis	86	pectoralis	166
peninsulæ	86	quadrifilis	166
scuticaris	86	ventralis	166
bascanium, Bascanichthys	86	Bathysaurus	164
Cœnula	86	agassizii	164
Bascanius	230	ferox	164
tædifer	230	mollis	164
bascanoides, Bascanichthys	86	Bathystoma	331
basilaris, Astatheros	421	aurolineatum	331
Heros	421	rimator	329, 331
Bassogigas	482	striatum	331
gilli	482	Bathystomus	331
stelliferoides	482	Bathytroctes	52
Bassozetus	480	alveatus	52
catena	480, 481	alvifrons	52
compressus	481	homopterus	53
natus	481	inspector	52
normalis	480, 481	microlepis	52
tænia	481	stomias	52
batabana, Corvula	345	Batis	24
batabanus, Johnius	345	radula	24
bathocætor, Salmo	57	batis, Raja	24, 25
Bathyaegonus	395	Batonlei	23
nigripinnis	395, 396	Batrachoides	486
Bathyalopex	33	boulengeri	487
abbreviatus	33	goldmani	487
plumbeus	33	pacifici	487
bathybii, Paraliparis	404	surinamensis	486
bathybius, Cynoglossus	228	tau	486
Embassichthys	228	variegata	487
Histiobranchus	78	vernulus	487
Synaphobranchus	78	Batrachoididæ	486
Bathylupea	281	Batrachus	487
argentea	281	celatus	487
hoskynii	281	margaritatus	487
Bathylupeidæ	281	pacifici	487
Bathylgadus	203	porosissimus	487, 488
arcuatus	202	surinamensis	486
cavernosus	207	tau pardus	487
cottoides	203	Batrictius	486
faveus	203	battaræ, Orthogoriscus	503
longifilus	202	bayamonensis, Gobionellus	441
macropterus	203	Gobius	441
melanobranchus	203	bayanus, Pomadasys	334
Bathygobius	440	Pomadasys	334
fuscus	440	bdellium, Petromyzon	9
soporator	440	Bdellostoma stoutii	8
Bathylæa	164	beadlei, Synchoglanis	151, 152
nigricans	164	beani, Belonoharax	100
Bathylagidæ	68	Caranx	272
Bathylagus	68	Otenolucius	100
antarcticus	68	Heros	419
benedicti	69	Kirtlandia	248
borealis	69	Melmaphys	233
euryops	69	Membras	243

List of scientific names—Continued

	Page		Page
beani, Ophidion	485	beringi, Crossias	389
Parapetenia	419	beringiana, Stelgistrus	379
Plectromus	233	beringianum, Stelgistrum	379
Poecilichthys	287	beringianus, Cyclogaster (Neoliparis)	399
Triglops	380	Neoliparis	399
beanii, Ammocrypta	289	berlandieri, Lepidosteus (Atractosteus)	38
Limanda	227	Mugil	253
Prionotus	408	bermudae, Branchiostoma	7
Serrivomer	84	Chromis	413
beanorum, Pontinus	372	Fundulus	175
beardslei, Salmo	57	heteroclitus	175
Salmo gairdneri	57	Furcaria	413
beckwithi, Cyprinella	130	bermudarum, Callionymus	450
becuna, Sphyrana	255	bermudensis, Carapus	486
bedoti, Bairdiella	246	Lefroyia	481
bedotis, Sciæna (Bairdiella)	246	Bermudichthys	430
beldingii, Cottus	384	subfurcatus	430
belis, Silurus	149	bernardini, Catostomus	101
belizanus, Belonesox	184	bertheloti, Crius	268
belizianus, Eleotris (Culitis)	436	Berycidae	234
belia, Hypoclydonia	197	Berycoidei	234
Bellator	408	beryllina, Menidia	247
egretta	408	beryllina cerea, Menidia	247
militaris	408	beryllinum, Christoma	247
bellieus, Nocomis	137	beryllinus, Cryptotomus	431
bellus, Balistes	491	Gobiesox (Rimicola)	490
Lythrurus	126	Rimicola	490
Minnilus	126	Beryx	234
Belone almeida	195	decadactylus	234
altipinna	197	splendens	234
angusticeps	196	Betaraia	25
ardeola	195	betarus, Cirrhitus	358
argalus	196	biaculeatus, Gasterosteus	237
caribbaea	197	Bibronia	230
cigonella	195	ligulata	230
crassa	196	bicaudalis, Chapinus	497
depressa	195	Ostracion	496, 497
diplotania	196	bicolor, Algansea	122
exilis	196	Ammocoetes	8
galeata	197	Anisotremus	332
gerania	196	Barathronus	484
hians	197	Chlopsis	82
jonesi	197	Exocoetus	201
latimana	197	Grammiconotus	197
maculata	197	Pristipoma	332
melanochira	196	Rondeletia	171
microps	196	Rypticus	315
notata	195	Siphateles	122
pacificæ	197	Smeeticus	316
raphidoma	196	Tigoma	120
scutator	196	bicornis, Cottus	378
stolzmanni	196	Icelus	378
strongylura	195	bifasciatum, Thallassoma	429
subtruncata	195	bifasciatus, Cichlaurus	416
timucu	195	Heros	416
truncata	196	Labrus	428, 429
Belonesox	184	Mullus	343
belizanus	184	Upeneus	343
Belonidae	195	bifasciatus torquatus, Labrus	429
Belonocharax beani	100	bifrenata, Hybopsis	135
Belonopsis	83	bifrenatus, Hybopsis	133, 135
leuchtenbergii	83	bigibbus, Kyphosus	339
bellus, Minnilus	126	biguttatus, Cochlognathus	146
bendirei, Cottus	384	Labrisomus	460
Potomacottus	384	Malacoctenus	460
benedicti, Bathylagus	69	Semotilus	137
bengalensis, Holocentrus	324	bilinearis, Merluccius	214
benoiti, Mycetophum	169	Stomodon	214
Scopelus	169	bilineata, Lepidopsetta	226
Benthocometes	482	Platessa	226
robustus	482	Skiffia	183
Benthodesmus	262	Umbra pygmaea	174
atlanticus	262	bilineatum, Pristipoma	332
elongatus	262	bilineatus, Characodon	183
Benthosauridae	166	Doryichthys	243
Benthosaurus	166	billingsiana, Cyprinella	131
grallator	166	biloba, Corvina	349
Benthosema	170	bilobus, Blepsias	382
arcticum	170	Histiocottus	382
mulleri	170	bimaculata, Percina	281
berardi, Aluteres	496	bimaculatus, Chaetodon	360
bergall, Ctenolabrus	424	Clinus	460
bergii, Pontinus	372	Halichoeres	426
Scorpaena	372	Malacoctenus	460
bergilax, Macrourus	205	Pocilloides	187
		Pseudoxiphophorus	187

List of scientific names—Continued

	Page		Page
bimaculatus Sayris.....	197	Blennius gunnellus.....	471
Xiphophorus.....	187	bentz.....	462
bimaculatus jonesi, Pseudoxiphophorus.....	188	herminier.....	459
bimaculatus taniatus, Pseudoxiphophorus.....	188	lævis.....	461
binghami, Xyrichtys.....	430	lampetraeformis.....	470, 471
binoculata, Raja.....	26	lumpenus.....	470
binotata, Aroia.....	295	marinereus.....	461
binotatus, Apogon.....	295	microstomus.....	461
Bipinnula.....	260	multifilis.....	461, 462
bipinnulata, Seriola.....	279	murænoideus.....	467
bipinnulatus, Elagatis.....	279	nuchifilis.....	461
birgei, Leucichthys.....	64	oceanicus.....	461
birostratus, Gurnardus.....	406	ocellaris.....	460
Prionotus.....	406	pholis.....	461
birostris, Manta.....	32	pilicornis.....	461
Raia.....	32	polaris.....	476
biserialis, Ophichthys.....	88	polyactocephalus.....	466
Opichthys.....	88	punctatus.....	462, 469
biseriatus, Archaulus.....	377	regius.....	213
bishopi, Alosa.....	43	saliens.....	463
bison, Aspicottus.....	381	serpentinus.....	470, 471
Carpodius.....	103	stearnsi.....	460
Lepisosteus.....	37	striatus.....	462
bispinosus, Gasterosteus.....	238	tænia.....	468
Gladiunculus.....	238	truncatus.....	461
Melamphaes.....	233	vinctus.....	461
Melichthys.....	493	blennius, Alburnops.....	133
Myliobatis.....	31	Etheostoma (Rhothæa).....	287
Plectromus.....	233	Hybopsis.....	133
bisselli, Coregonus tullibee.....	63	Ulocentra.....	287
Leucichthys arcti.....	63	Blennophis.....	464
bis-trispinus, Bodianus.....	316	webbii.....	464
bistrispinus, Bodianus.....	316	Bleparichthys.....	274
Promicropeternus.....	316	Blepharis.....	274
bisus, Scomber.....	259	major.....	274
bitæniatus, Eumyeterias.....	500	sutor.....	274
bivittata, Elacate.....	281	blepharis, Carangoides.....	274
Iridio.....	426	blephura, Anguilla.....	77
bivittatus, Hybopsis.....	119	Blepsias.....	382
Labrus.....	426	bilobus.....	382
Serranus.....	318	cirrhus.....	382
blackfordi, Lutjanus.....	326	oculofasciatus.....	382
Lutjanus.....	326	trilobus.....	382
Neomænis.....	453	ventricosus.....	380, 381
Yarella.....	72	Blepsidae.....	382
blackfordii, Lutjanus.....	326	blochii, Bodianus.....	425
Lutjanus.....	326	Caranx.....	271
Blakea.....	458	Orthogoriscus.....	503
blanchardi, Gasterosteus.....	239	Piramutana.....	159
Neoclinus.....	458	boa, Esor.....	69
bleekeriana, Chirocentron.....	45	bocourti, Herichthys.....	423
Pellona.....	45	Neetroplus.....	423
Bleckeridae.....	451	Bodianus.....	309, 425
Blennitrus.....	462	acanthistius.....	309
Blennicottus.....	391	aehigan.....	298
clarki.....	377	albostratus.....	325
globiceps.....	391	apua.....	313
bryostus.....	391	argyroleucos.....	345
recalvus.....	391	argyro-leucos et exiguus.....	345
Blenniidae.....	460	bistrispinus.....	316
blennioides, Etheostoma.....	283, 286	bis-trispinus.....	316
Blenniolus.....	461	blochii.....	425
blenniopectera, Hyostoma.....	286	bodianus.....	309, 425
Blennius.....	460	costatus.....	349
americanus.....	473	diplotænia.....	425
anguillaris.....	470, 473	fasciatus.....	325
asterias.....	461	guatavere.....	309
asterius.....	461	guttatus.....	309
bosquianus.....	462	jaguar.....	235
brevipinnis.....	461	marginatus.....	313
chisso.....	212	pallidus.....	345
chuss.....	213	pentacanthus.....	235
ciliatus.....	473	pulchellus.....	425
crinitus.....	461	rufus.....	425
cristatus.....	461	rupestris.....	303
dolichogaster.....	468	stellatus.....	309
europeus.....	467	stellifer.....	346
fabri.....	460	striatus.....	325
favosus.....	461	triourus.....	323
flimbriatus.....	473	vivanet.....	325
fucorum.....	461	bodianus, Bodianus.....	309, 425
galerita.....	460	boekei, Callionymus.....	150
geminatus.....	461, 462	Doratonotus.....	429
pentilis.....	462	Melanorhinus.....	249
gracilis.....	471	Moringua.....	89

List of scientific names—Continued

	Page		Page
Bogmarus	216	borealis, Notorhynchus	11
islandicus	216	Oligocottus	390
bogmarus, Trachypterus	216	Opsopœodus	115
Bogostolius	204	Paralepis	165
clarki	204	Petromyzon	10
firmisquamis	204	Pimelodus	152
Boleichthys	293	Pœcilichthys	291
eos	294	Sphyræna	255
exilis	293, 294	Squalus	21, 22
fusiformis	294	Boreocottus	387
gracilis	294	axillarus	387
warreni	294	Boreogadus	209
whipplei	292	saida	209
boleoides, Cottus	385	Boreogaleus	14
Radulinus	379	boreus, Esox	173
Boleosoma	287, 288	Borophryne	509
resopus	287	apogon	509
camurum	288	Borborys	175
effulgens	287	boschnæ, Pomadasys	334
fusiforme	294	Pristipoma	334
gracile	294	bosci, Abramis	350
lepida	290	Gobiosoma	446
maculaticeps	287	Gobius	442, 445, 446
maculatum	287	Notemigonus	115
messeum	287	Pimelepturus	339
nigrum	287	sicula, Pimelepturus	340
olmstedii	287	boscii, Atherina	247
brevipinnis	287	Gobius	442
phlox	287	Leuciscus	115
stigmaeum	287	Seriola	280
susanne	288	bosquianus, Blennius	462
tassellatum	287	Chasmodes	462
tessellatum	285, 287	bosquiannus, Chasmodes	460
vexillare	288	bosquii, Pimelepturus	340
boleosoma, Gobius	439	bostoniensis, Catostomus	105
rhinogobius	439	Murena	77
bolli, Ameiurus	153	Bothide	217
bollmani, Hippoglossina	223	Bothragonus	396
Opsopœa	115	swanii	396
Opsopœodus	115	Bothroceara	477
Scarus	433	mollis	477
Bollmannia	443	pusilla	477
boqueronensis	443	remigera	477
chlamydes	443	Bothrocaropsis	477
macropoma	443	alalonga	477
ocellata	443	elongata	477
stigmatura	443	rietolata	477
bombifrons, Helioperca	391	Bothrolæmus	276
Pomotis	391	Bothus	217
Bonaci cardenal	313	boucardi, Leuciscus	132
Bonaci, Serranus	314	Moniana	132
Trisotropis	314	Pœcilia	192
xanthosticta, Mycteroperca	314	Pristipoma	334
bonapartei, Lampanyctus	167	bougainvillei, Sebastes	370
Pœcilosephalus	87	boulengeri, Batrachoides	487
Bonapartia	72	Mycteroperca	313
pedaliota	72	Plecotomus	160
bonariense, Hæmulon	329	Trisotropis	313
bonariensis, Seriola	280	bouvieri, Salmo	56
bonasus, Bupalichthys	102	Salmo purpuratus	56
Rhinoptera	31	bovinum, Plectropoma	321
bonita, Gambusia	188	bovinus, Cyprinodon	181
Pripella	188	Hypoplectrus unicolor	321
Boops	417	rubrofluvialis, Cyprinodon	181
boops, Caranx	272	bowersi, Labichthys	84
Hybopsis	134	Mycteroperca	314
Macrourus	205	Rhinichthys	139
Macrurus	205	Bowersia	328
Myctophum	169	violescens	328
Notropis	134	bowersianus, Careproctus	403
Ostracion	503	bowmani, Plagyryus	128
Seomber	270	Box	417
Trachurus	272	boyeri, Atherina	246
boqueronensis, Bollmannia	443	brachiale, Sparisoma	433
borea, Luciopeca	282	brachialis, Baiostoma	230
borealis, Alepidosaurus	171	Scarus	433
Ammocoetes	9	brachiatus, Diodon	501
Arctozenus	165	Brachioptilon	32
Bathylagus	69	hamiltoni	32
Caulopus	171	brachiuseculus, Grammicolepis	232
Fierasfer	471	brachyacanthus, Ameiurus	154
Icelinus	376	Ameiurus	154
Lampetra	10	brachycentrus, Nauclerus	278
Molvella	208	brachycephala, Rhamdia	157
Nivicola	291		

List of scientific names—Continued

	Page		Page
brachycephalus, <i>Exocoetus</i>	200	Brachyrhamphichthys.....	101
Pimelodus.....	157	Brachyrhaphis.....	186
Syngnathus.....	241	cascajalensis.....	187
Uranichthys.....	87	episcopi.....	187
Bramidae.....	265	olomina.....	187
Bramiformes.....	265	parismina.....	187
Bramocharax.....	99	rhabdophora.....	186
bransfordi.....	99	terrabilis.....	186
elongatus.....	99	Brachyrhinus.....	320
Bramopsis.....	410	brachyrhynchus, <i>Acipenser</i>	34
mento.....	410	Rhynchichthys.....	235
branchialis, <i>Ammocetus</i>	8	brachysoma, <i>Epinephelus</i>	311
branchiomelas, <i>Anchoviella</i>	49	Brachysomophis.....	89
Stolephorus.....	49	crocodilinus.....	89
Branchiostegidae.....	357	horridus.....	89
Branchiostoma.....	7	brachysomus, <i>Calamus</i>	337
bermudæ.....	7	Sparus.....	337
californiense.....	7	brachyurus, <i>Oxydontiichthys</i>	88
caribæum.....	7	bradfordi, <i>Porocottus</i>	388
floridæ.....	7	Brama.....	265
lanceolatum.....	7	agassizii.....	265
lubricum.....	7	brevoortii.....	265
pelagicum.....	7	chilensis.....	265
platæ.....	7	dussumieri.....	265
virginia.....	7	marina cauda forcipata.....	265
Branchiostomidae.....	7	oreini.....	265
Branchistegus.....	357	parra.....	426
Branchyconger.....	78	raii.....	265
brandieriana, <i>Cœcilia</i>	84	saussurii.....	265
Branderius.....	84	brama, <i>Cynadus</i>	338
brandti, <i>Arius</i>	148	brasilensis, <i>Torpedo</i>	27
branieki, <i>Pristipoma</i>	334	Vomer.....	275
Rhenciscus.....	334	brasilensis corallina, <i>Narcine</i>	27
Brannerella.....	464	braytoni, <i>Notropis</i>	135
brasilensis.....	464	Bregmaceros.....	208
sluiteri.....	464	atlanticus.....	208
bransfordi, <i>Bramocharax</i>	99	bathymaster.....	208
Loricaria.....	162	longipes.....	208
Rhamdia.....	157	maclellandii.....	208
brasiliensis, <i>Eugerres</i>	342	Bregmacerotidae.....	208
Gerres.....	342	breve, <i>Chirostoma</i>	250
brasiliense, <i>Pristipoma</i>	332	brevibarbe, <i>Lepophidium</i>	484
brasiliensibus, <i>Capeuna</i>	331	Ophidium.....	484
Guabicoara.....	330	brevibarbis, <i>Chalinura</i>	204
brasiliensis, <i>Brannerella</i>	464	brevicauda, <i>Pomoxys</i>	304
Centropomus.....	320	Salmo.....	56
Clupea.....	40	brevicaudata, <i>Brevoortia tyrannus</i>	44
Conger.....	78	brevicaudum, <i>Siphostoma</i>	241
Erythrinus.....	99	brevicaudus, <i>Diaphanichthys</i>	79
Esoc.....	199	Syngnathus.....	241
Gobius.....	448	Breviceps.....	147
Hemiramphus.....	199	filamentosus.....	147
Hippoglossus.....	224	breviceps, <i>Evorthodus</i>	438
Hypostomus.....	160	Gasterosteus.....	239
Labrus.....	426	Gobius.....	440
Mugil.....	253	Larimus.....	344
Narcine.....	27	Moxostoma.....	111
Paralichthys.....	224	Pomacentrus.....	413
Plagusia.....	231	Pomotis.....	300
Scorpena.....	371	Porogadus.....	482
Thynnus.....	258	Ptychostomus.....	111
brachychira, <i>Trachurops</i>	271	brevifilis, <i>Ageneiosus</i>	159
brachychirus, <i>Trachurops</i>	271	brevimanus, <i>Eugerres</i>	343
Brachydeuterus.....	333	Gerres.....	343
auritus.....	333	Tetragonopterus.....	96
axillaris.....	333	brevipes, <i>Lycodes</i>	475
corvinaformis.....	333	brevipinna, <i>Somniosus</i>	21, 22
leuciscus.....	333	brevipinna, <i>Ditrema</i>	409
nitidus.....	333	Pristipoma.....	335
Brachygenys.....	330	(Hæmulopsis).....	335
chrysargyreus.....	331	brevipinnis, <i>Blennius</i>	461
Brachyistius.....	409	Microlepidotus.....	335
frenatus.....	409	Thynnus.....	258
Brachymullus.....	343	brevirostre, <i>Peristedion</i>	405
Brachyopsis verrucosus.....	394	Peristethus.....	405
xyosternus.....	394	brevirostris, <i>Acipenser</i>	34
brachypoda, <i>Gasterosteus pungitius</i>	239	Chasmistes.....	108
Pungitius.....	239	Cololabis.....	198
Brachyprosopon.....	228	Engraulis.....	51
brachyptera, <i>Echeneis</i>	449	Gerres.....	342
Remoropsis.....	449	Hypopomus.....	101
brachypterus, <i>Holocentrus</i>	236	Hypoprius.....	17
Lutjanus.....	326	Macrogathus.....	199
Lutjanus.....	326	Rhamphichthys.....	101
Pimelodus.....	157	Rhynchoceratus.....	511
Zygonectes (<i>Micristius</i>).....	185	Saurus.....	163

List of scientific names—Continued

	Page		Page
brevirostris, Scombresox.....	198	Brycon.....	98
Syngnathus.....	240	argenteus.....	98
brevirostrum, Acipenser.....	34	cephalus.....	98
Anchovia.....	51	dentex.....	98
Hæmulon.....	330	falcatus.....	98
Stolephorus.....	50	guatemalensis.....	98
brevis, Acanthurus.....	362	oligolepis.....	99
Amblyopus.....	448	petrosus.....	98
Atherinichthys.....	250	striatulus.....	98
Camptostoma.....	146	Bryconamericus.....	97
Centropomus.....	306	cascajalensis.....	97
Dasyatis.....	29	emperador.....	97
Engraulis.....	51	exodon.....	97
Fundulus parvipinnis.....	176	Bryolophus.....	466
Tyntlastes.....	448	lysimus.....	466
Xiphophorus.....	194	bryoporus, Spratelloides.....	41
helleri.....	194	Bryostemma.....	466
brevispina, Richia.....	293	decoratum.....	466
Richiella.....	293	nugator.....	466
brevispine, Acutomentum.....	366	polyactcephalum.....	466
brevispinis, Sebastichthys proriger var.....	366	tarsodes.....	466
brevortii, Argyreiosus.....	276	Brysetæres.....	488
Argyriosus.....	276	pinniger.....	488
Brama.....	265	Bryssophilus.....	488
Euleptorhamphus.....	198	Bryttus.....	298
Pœcilurichthys.....	96	albulus.....	302
brevortii, Pœcilurichthys.....	97	fasciatus.....	304
Brevortia.....	44	gloriosus.....	304
patronus.....	44	humilis.....	300
tyrannus.....	44	mineopas.....	299
brevicaudata.....	44	oculatus.....	300
brevortii, Astyanax.....	97	punctatus.....	298, 299
Euleptorhamphus.....	198	reticulatus.....	299
briareos, Chilomycterus.....	502	signifer.....	299
Cyclichthys.....	502	unicolor.....	299
bricei, Chætodon.....	359	Bunalichthys.....	102
brimleyi, Coccotis.....	127	altus.....	102
Notropis.....	127	bonasus.....	102
bristolensis, Cyclogaster.....	399	bubalinus.....	102
Neoliparis.....	399	niger.....	102
broceus, Balistes.....	494	urus.....	102
brodamus, Cottus.....	395	bubalina, Cyprinella.....	130
Brontes.....	159	bubalinus, Bubalichthys.....	102
prenadilla.....	159	Leuciscus.....	130
Brosme.....	213	bubalis, Acanthocottus.....	386
brosme.....	214	Amblodon.....	102
brosme, Brosme.....	214	Cottus.....	386
Gadus.....	213, 214	Ichthyobus.....	102
Brosmerus.....	213	Ictiobus.....	102
flavesny.....	213, 214	buccanella, Lutianus.....	326
brosmiana, Lota.....	212	Mesoprion.....	326
Brosmius.....	213	buccata, Ericymba.....	141, 142
marginatus.....	479	bucciferus, Labrisomus.....	459
Brosomphycis.....	479	Labrosomus.....	459
marginatus.....	479	bucco, Moxostoma.....	110
ventralis.....	480	Ptychostomus.....	110
verillii.....	480	Buccone.....	354
Brotila.....	479	prædatoria.....	354
barbata.....	479	bucculentus, Chonophorus.....	442
Brotilidæ.....	479	bucephalus, Macrourus.....	205
broussonetii, Acanthurus.....	362	Macurus.....	205
broussonetii, Gobioides.....	448	buchanani, Hybopsis.....	134
Umbrina.....	350	Notropis.....	134
browni, Lucania.....	181	buettikoferi, Tilapia.....	423
Solea.....	229	buffalo, Acipenser (Antaceus).....	35
brownii, Atherina.....	48	bufo, Lophius.....	487
Hemiramphus.....	199	Scorpaena.....	370
Vomer.....	274, 275	bulbiceps, Macrourus.....	205
bruceus, Echinorhinus.....	22	Macurus.....	205
Squalus.....	22	Maynea.....	477
brunnea, Lycogramma.....	476	bullaris, Cyprinus.....	117
Maynea.....	476	bulleri, Paraneotroplus.....	423
brunneus, Amiurus.....	154	Prionodes.....	319
Apristurus.....	12	Serranus.....	319
Catulus.....	12	buniya, Balistes.....	491, 493
Ectenias.....	265	burchami, Icelinus.....	376
Gobius.....	440	burgall, Ctenolabrus.....	424
Gymnothorax.....	92	burragei, Bajaacalifornia.....	53
Hippocampus.....	244	burtonianus, Leuciscus.....	121
Ilyophis.....	78	buscki, Sicidium.....	447
Rivulus.....	180	butleri, Pœcilia.....	192
Serranus.....	314	butlerianus, Pœcilichthys.....	294

List of scientific names—Continued

	Page		Page
<i>Butyrinus</i>	39	<i>californiensis</i> , <i>Diapterus</i>	341
<i>banana</i>	39, 40	<i>Coryhamphus</i>	243
<i>Bythites</i>	480	<i>elongatus</i> , <i>Eucinostomus</i>	341
<i>fuscus</i>	480	<i>Eucinostomus</i>	341
<i>caballa</i> , <i>Cybum</i>	257	<i>Medialuna</i>	358
<i>Caballerote</i>	325	<i>Ophisurus</i>	88
<i>caballerote</i> , <i>Anthias</i>	325	<i>Otolithus</i>	356
<i>caballus</i> , <i>Caranx</i>	272	<i>Polynemus</i>	256
<i>Paratractus</i>	272	<i>Scorpius</i>	358
<i>caboverdianus</i> , <i>Ginglymostoma</i>	12	<i>Syngnathus</i>	240
<i>cabrerae</i> , <i>Rhamdia</i>	157	<i>Typhlogobius</i>	447
<i>Cabrilla</i>	311	<i>Xenichthys</i>	324
<i>Cacilia</i>	84	<i>Xenistius</i>	324
<i>Cæcorhamdia</i>	158	<i>callarius</i> , <i>Gadus</i>	210
<i>urichi</i>	158	<i>Salmo</i>	61
<i>cærulea</i> , <i>Cheonda</i>	120	<i>Callaus</i>	348
<i>Clupea</i>	41	<i>deliciosa</i>	348
<i>Coryphæna</i>	434	<i>Callochelys</i>	86
<i>Erogala</i>	130	<i>guichenoti</i>	86
<i>Etheostoma</i>	291	<i>muræna</i>	86
<i>Meletta</i>	43	<i>peninsula</i>	86
<i>Sardinia</i>	43	<i>Callichthyidae</i>	160
<i>cæruleatus</i> , <i>Acronurus</i>	362	<i>Callichthys</i> (<i>Holosternum</i>) <i>thoracatus</i>	160
<i>cæruleoaurum</i> , <i>Harpe</i>	425	<i>lævigatus</i>	160
<i>cæruleofasciatus</i> , <i>Bathymaster</i>	451	<i>littoratus</i>	160
<i>cærulescens</i> , <i>Arius</i>	150	<i>Callidulus</i>	320
<i>Galeichthys</i>	150	<i>flaviventris</i>	320
<i>cæruleus</i> , <i>Acanthurus</i>	362	<i>Calliodon retractus</i>	431
<i>Carcharias</i>	16	<i>Callionymidae</i>	450
<i>Oligocephalus</i>	289, 291	<i>Callionymus</i>	450
<i>Photogenis</i>	130	<i>agassizii</i>	450
<i>Scarus</i>	434	<i>atrilabiatus</i>	450
<i>Squalus</i>	17	<i>bairdi</i>	450
<i>Cæsiomorus</i>	276	<i>bermudarum</i>	450
<i>bailloni</i>	276	<i>beckei</i>	450
<i>cæsius</i> , <i>Paraconodon</i>	331	<i>calliurus</i>	450
<i>Pomadasyx</i>	331	<i>himantophorus</i>	450
<i>caguite</i> , <i>Sicydium</i>	447	<i>lyra</i>	450
<i>calablepta</i> , <i>Dermatocheir</i>	97	<i>pauciradiatus</i>	450
<i>Calamus</i>	336	<i>pelagicus</i>	409
<i>arctifrons</i>	337	<i>sancti-eustatii</i>	450
<i>bajonado</i>	336	<i>callipteryx</i> , <i>Camponotia</i>	146
<i>brachysomus</i>	337	<i>callisema</i> , <i>Episema</i>	132
<i>calamus</i>	336	<i>Moniana</i>	132
<i>kendalli</i>	337	<i>callisoma</i> , <i>Herpetoichthys</i>	88
<i>leucosteus</i>	337	<i>callistia</i> , <i>Erogala</i>	130
<i>macrops</i>	337	<i>callistius</i> , <i>Photogenis</i>	130
<i>medius</i>	337	<i>calliura</i> , <i>Cyprinella</i>	129
<i>megacephalus</i>	336	<i>Etheostoma</i>	298
<i>penna</i>	337	<i>Mycteroperca</i>	315
<i>pennatula</i>	336	<i>Calliurus</i>	298
<i>plumatula</i>	336	<i>diaphanus</i>	299
<i>proridens</i>	336	<i>floridensis</i>	303
<i>calamus</i> , <i>Calamus</i>	336	<i>formosus</i>	299
<i>Pagellus</i>	336	<i>melanops</i>	302, 303
<i>calcarata</i> , <i>Scorpiæna</i>	371	<i>microps</i>	299
<i>calcea</i> , <i>Acanthidium</i>	21	<i>murinus</i>	299
<i>caliente</i> , <i>Xenodermus</i>	184	<i>punctulatus</i>	298
<i>calientis</i> , <i>Goodea</i>	184	<i>calliurus</i> , <i>Callionymus</i>	450
<i>Hypopsis</i>	134	<i>Ioglossus</i>	438
<i>Notropis</i>	134	<i>callolepis</i> , <i>Harengula</i>	43
<i>californica</i> , <i>Alosa</i>	43	<i>Heros</i>	422
<i>Maynea</i>	477	<i>Thorichthys</i>	422
<i>Morhuia</i>	210	<i>callopterus</i> , <i>Cypselurus</i>	202
<i>Squatina</i>	22	<i>Exocoetus</i>	202
<i>Tetrarctus</i>	27	<i>Calloptilum</i>	208
<i>Torpedo</i>	27	<i>mirum</i>	208
<i>californicus</i> , <i>Ambloplites</i>	31	<i>callorhini</i> , <i>Therobromus</i>	68
<i>Cypselurus</i>	202	<i>Callorhynchus atlanticus</i>	32
<i>Exocoetus</i>	202	<i>centrina</i>	32
<i>Hallichoeres</i>	428	<i>Calliodon</i>	433, 434
<i>Hippoglossus</i>	223	<i>auro-punctatus</i>	431
<i>Mustelus</i>	13	<i>compressus</i>	434
<i>Myliobatis</i>	31	<i>microps</i>	435
<i>Myliobatus</i>	31	<i>ustus</i>	431
<i>Oxyjulis</i>	428	<i>calliodon</i> , <i>Cyclopterus</i>	399
<i>Paralichthys</i>	223	<i>Neoliparis</i>	399
<i>Stereolepis</i>	308	<i>calobrense</i> , <i>Cichlasoma</i>	417
<i>californiense</i> , <i>Branchiostoma</i>	7	<i>calobrensis</i> , <i>Cichla</i>	417
<i>Myctophum</i>	169	<i>calopteryx</i> , <i>Serranus</i>	319
<i>californiensis</i> , <i>Atherinops</i>	252	<i>Calotomus</i>	431
<i>Chilomycterus</i>	502	<i>xenodon</i>	431
<i>Cyprinodon</i>	181		

List of scientific names—Continued

	Page		Page
calva, <i>Amia</i>	38	canus, <i>Macrurus</i>	206
<i>Amiatus</i>	38	<i>Macurus</i>	206
<i>Calycilepidotus</i>	381	<i>Capellaria</i>	505
<i>spinosus</i>	381	capellei, <i>Lophotes</i>	215
<i>Camarina</i>	338	capense, <i>Scyllium</i>	11
<i>nigricans</i>	338, 339	capensis, <i>Carcharodon</i>	20
camchaticus, <i>Arctidiellus</i>	378	capetensis, <i>Loricaria</i>	162
camelopardalis, <i>Mycteroperca</i>	315	Capeuna <i>brasilensis</i>	331
<i>Serranus</i>	315	capeuna, <i>Serranus</i>	331
campechanus, <i>Lutianus</i>	326	capillaris, <i>Zeus</i>	275
<i>Mesoprion</i>	326	capillatus, <i>Clinus</i>	459
campbelli, <i>Moxostoma</i>	109	capistratus, <i>Balistes</i>	492
<i>Salmo</i>	61	<i>Chaetodon</i>	359
camperi, <i>Scomberesox</i>	197	<i>Tetrodon</i>	500
camperii, <i>Scomberesox</i>	197	capite plagioplateo, <i>Eleotris</i>	436
campi, <i>Signalosa mexicana</i>	47	<i>striato</i> , <i>Perca marina</i>	330
Campostoma.....	146	capito, <i>Macrourus</i>	205
<i>anomalum</i>	146	<i>Macurus</i>	205
<i>brevis</i>	146	<i>Poromitra</i>	223
<i>callipteryx</i>	146	caprinus, <i>Balistes</i>	491
<i>formulosum</i>	147	<i>Otrynter</i>	336
<i>gobionium</i>	146	<i>Stenotomus</i>	336
<i>hippops</i>	146	Capriscus.....	491
<i>mormyrus</i>	146	<i>minima</i>	496
<i>nasutum</i>	146	<i>porcus</i>	491
<i>ornatum</i>	146	caprisicus, <i>Balistes</i>	491
<i>pricei</i>	147	caprodes, <i>Etheostoma</i>	282
Campylodon.....	75	<i>Percina</i>	283
<i>fabricii</i>	75	<i>Sciæna</i>	282, 283
camtharinum, <i>Pristipoma</i>	335	Caprophonus.....	358
camtschaticus, <i>Crossias</i>	389	<i>aurora</i>	358
camura, <i>Ciola</i>	129	capros, <i>Antigonia</i>	358
<i>Erogala</i>	129	captiva, <i>Goodea</i>	184
<i>Vaillantia</i>	288	caracasenses, <i>Hemiloricaria</i>	161
camurum, <i>Boleosoma</i>	288	caramuru, <i>Muranophis</i>	91
<i>Etheostoma</i>	292	Carangidae.....	239, 269
camurus, <i>Nothonotus</i>	290	Carangichthys.....	273
<i>Pœcilichthys</i>	290	<i>typus</i>	273
cana, <i>Allogambusia</i>	188	Carangoides <i>blepharis</i>	274
<i>Gambusia</i>	188	<i>dorsalis</i>	274
canadensis, <i>Cynoperca</i>	282	<i>gallichthys</i>	274
<i>Salmo</i>	60	carangoides, <i>Seriolophus</i>	280
canadensis, <i>Lucioperca</i>	282	Carangops.....	271
canadus, <i>Gasterosteus</i>	281	Carangus <i>aureus</i>	272
<i>Rachycentron</i>	281	<i>esculentus</i>	273
canaliculatus, <i>Icelus</i>	378	<i>hippoides</i>	273
canariensis, <i>Clinus</i>	459	carangus, <i>Scomber</i>	273
<i>Pteraplatea</i>	29	Caranx.....	271, 273
cancrivorus, <i>Pisodonophis</i>	85, 86	<i>amblyrhynchus</i>	271
candalarius, <i>Profundulus</i>	174	<i>antillarum</i>	273
candidissimus, <i>Leptocephalus</i>	79	<i>atrimanus</i>	271
candidus, <i>Careproctus</i>	403	<i>aureus</i>	270, 272
canensis, <i>Acanthicus</i>	161	<i>bartholomaei</i>	272
<i>Leptoancistrus</i>	161	<i>beani</i>	272
canescens, <i>Ancanthias</i>	161	<i>blochii</i>	271
canicula, <i>Squalus</i>	11	<i>caballus</i>	272
canina, <i>Amia</i>	38	<i>chrysurus</i>	345
caninianus, <i>Scopelinus</i>	169	<i>cibi</i>	272
caninus, <i>Lachnolaimus</i>	425	<i>daubentonii</i>	273
<i>Pajellus</i>	336	<i>defensor</i>	273
canis, <i>Cynias</i>	13	<i>dumerili</i>	279
<i>Salmo</i>	54	<i>erithrurus</i>	273
<i>Squalus</i>	13	<i>esculentus</i>	273
canna, <i>Hæmulon</i>	329	<i>falcatus</i>	271
Cannorhynchus.....	245	<i>fallax</i>	272
Cantharus <i>nigro-maculatus</i>	305	<i>fasciatus</i>	272
Cantherines.....	493	<i>frontalis</i>	273
<i>amphioxys</i>	494	<i>firthii</i>	271
<i>carolæ</i>	494	<i>girardi</i>	272
<i>nasutus</i>	493, 494	<i>hasselti</i>	270
<i>pullus</i>	494	<i>heterophygus</i>	271
Canthidermis.....	492	<i>hippoides</i>	273
<i>angulosus</i>	492	<i>hippos</i>	273
<i>maculatus</i>	493	<i>ignobilis</i>	273
<i>sobaco</i>	492	<i>iridinus</i>	271
<i>sufflamen</i>	492	<i>kurra</i>	270
<i>willughbelli</i>	493	<i>latus</i>	272
Canthigaster.....	500	<i>lepturus</i>	272
<i>punctatissimus</i>	500	<i>leucurus</i>	271
<i>rostratus</i>	500	<i>lugubris</i>	273
Canthigasteridae.....	500	<i>macarellus</i>	270
Canthirhynchus.....	397	<i>macrophthalmus</i>	271
Canthogaster <i>lobatus</i>	498	<i>marginatus</i>	272
cantraini, <i>Tylosurus</i>	197	<i>medusicola</i>	272
cantrainii, <i>Tylosurus</i>	196	<i>melampygus</i>	272

List of scientific names—Continued

	Page		Page
<i>Caranx orthogrammus</i>	274	<i>Carcharius isodon</i>	15
<i>otrynter</i>	274	<i>punctatus</i>	15
<i>panamensis</i>	273	<i>carcharius</i> , <i>Carcharodon</i>	15
<i>pisquetos</i>	272	<i>Carcharodon</i>	20
<i>pisquetus</i>	272	<i>capensis</i>	20
<i>punctatus</i>	270, 273	<i>carcharias</i>	15, 20
<i>richardi</i>	272	<i>rondeleti</i>	20
<i>sanctæ-helenæ</i>	270	<i>verus</i>	20
<i>secundus</i>	272	<i>carcinognathus</i> , <i>Gymnothorax</i>	93
<i>semispinosus</i>	270	<i>cardenal</i> , <i>Bonaci</i>	313
<i>stellatus</i>	273	<i>cardonæ</i> , <i>Coralliozetus</i>	464
<i>symmetricus</i>	270	<i>Careliparis</i>	400
<i>tenebrosus</i>	273	<i>agassizii</i>	400
<i>trachurus japonicus</i>	270	<i>dennyi</i>	400
<i>vinetus</i>	272	<i>herschelinus</i>	400
<i>Caranxomorus plumieiranus</i>	270	<i>tunicatus</i>	400
<i>Carapide</i>	486	<i>Caremitra</i>	401
<i>carapinus</i> , <i>Coryphænoideæ</i>	205	<i>sima</i>	401
<i>Carapo</i>	101	<i>Carencheli</i>	77
<i>carapo</i> , <i>Gymnotus</i>	161, 486	<i>Careproctus</i>	402
<i>Carapus</i>	161, 486	<i>attenuatus</i>	403
<i>affinis</i>	486	<i>bowersianus</i>	403
<i>arenicola</i>	486	<i>candidus</i>	403
<i>bermudensis</i>	486	<i>colletti</i>	402
<i>Carauna</i>	309	<i>ectenes</i>	402, 403
<i>carauna</i> , <i>Serranus</i>	309	<i>furcellus</i>	402
<i>carbo</i> , <i>Aphanopus</i>	262	<i>gelatinosus</i>	402
<i>carbonaria</i> , <i>Percina</i>	283	<i>gilberti</i>	402
<i>Pileoma</i>	283	<i>longifilis</i>	403
<i>carbonarium</i> , <i>Hæmulon</i>	330	<i>longipinnis</i>	403
<i>carbonarius</i> , <i>Acipenser</i>	35	<i>melanurus</i>	402, 403
<i>Gadus</i>	269	<i>mollis</i>	403
<i>carbunculus</i> , <i>Etelis</i>	328	<i>opisthotremus</i>	403
<i>Carcharinus</i>	15	<i>ostentum</i>	402
<i>cerdale</i>	16	<i>phasma</i>	402
<i>menisorrah</i>	16	<i>ranulus</i>	402
<i>natator</i>	17	<i>reinhardi</i>	402
<i>velox</i>	16	<i>simus</i>	401
<i>Carcharias</i>	15	<i>spectrum</i>	402
<i>aconotus</i>	16	<i>caribæum</i> , <i>Branchiostoma</i>	7
<i>æthalarus</i>	17	<i>caribæus</i> , <i>Sargus</i>	338
<i>atwoodi</i>	20	<i>caribbæa</i> , <i>Belone</i>	197
<i>azureus</i>	16	<i>fluska</i>	45
<i>cæruleus</i>	16	<i>caribbæus</i> , <i>Chloroscombrus</i>	276
<i>cerdale</i>	16	<i>Cælorhynchus</i>	207
<i>commersonii</i>	15	<i>Halieutichthys</i>	507
<i>falciformis</i>	16	<i>Macrurus</i>	207
<i>falcipinnis</i>	16	<i>Tylosurus</i>	197
<i>fronto</i>	17	<i>caribbeus</i> , <i>Aphthalmichthys</i>	89
<i>griseus</i>	19	<i>carinatum</i> , <i>Acanthosoma</i>	503
<i>hemiodon</i>	17	<i>Siphostoma</i>	240
<i>henlei</i>	16	<i>carinatus</i> , <i>Diodon</i>	503
<i>isodon</i>	15	<i>Labichthys</i>	84
<i>lalandi</i>	15	<i>Placopharynx</i>	111
<i>lamia</i>	15, 20	<i>Salmo</i>	56
<i>lamiaella</i>	15	<i>Syngnathus</i>	240
<i>limbatus</i>	16, 17	<i>carinicauda</i> , <i>Halosaurichthys</i>	74
<i>longurio</i>	15	<i>carletoni</i> , <i>Leuciscus</i>	116
<i>macloti</i>	17	<i>carminale</i> , <i>Tripterygium</i>	458
<i>menisorrah</i>	15	<i>carminalis</i> , <i>Enneapterygius</i>	458
<i>microps</i>	16	<i>carminatus</i> , <i>Cælorhynchus</i>	207
<i>milberti</i>	16, 17	<i>Macrurus</i>	207
<i>natator</i>	17	<i>carminifer</i> , <i>Macrourus</i>	206
<i>nicaraguensis</i>	16	<i>Macrurus</i>	206
<i>obesus</i>	14	<i>carinatus</i> , <i>Pteropodus</i>	369
<i>obscurus</i>	16	<i>Sebastichthys</i>	369
<i>oxyrhynchus</i>	15, 16	<i>carneus</i> , <i>Aconurus</i>	362
<i>platyodon</i>	15	<i>Sicyases</i>	490
<i>platyrhynchus</i>	15	<i>carolæ</i> , <i>Cantherines</i>	494
<i>porosus</i>	16	<i>carolina</i> , <i>Argentina</i>	39
<i>(Prionodon) limbatus</i>	16	<i>Atherina</i>	246
<i>milberti</i>	16	<i>Trigla</i>	400, 408
<i>müllerii</i>	16	<i>carolinæ</i> , <i>Potamocottus</i>	383, 385
<i>punctatus</i>	15	<i>carolinensis</i> , <i>Balistes</i>	491
<i>remotus</i>	16	<i>Cestreus</i>	354
<i>sorrah</i>	15	<i>Clupea</i>	44
<i>taurus</i>	15, 19	<i>Gobius</i>	440
<i>temminckii</i>	15	<i>Hyperistius</i>	305
<i>turni</i>	19	<i>Otolithus</i>	355
<i>velox</i>	16	<i>Seriola</i>	279
<i>carcharias</i> , <i>Carcharodon</i>	15, 20	<i>carolinus</i> , <i>Gasterosteus</i>	276, 277
<i>Squalus</i>	15, 20	<i>Labrus</i>	424
<i>(Carcharias) terra-novæ</i> , <i>Squalus</i>	14	<i>Lipophrys</i>	461
<i>Carchariidæ</i>	13	<i>Merulinus</i>	407
		<i>Pholis</i>	461

List of scientific names—Continued

	Page		Page
carolinus, Priacanthus	322, 323	Catonotus flabellaris	292, 383, 385
Pteraclis	266	kennicottii	293
Trachinotus	277	lineolatus	293
carpintis, Herichthys	423	Catostomidae	102
Neotroplus	423	Catostomus	105, 106
carpio, Carpiodes	103	(Acomus) generosus	104
Catostomus	103, 109	griseus	107
Cyprinodon	180	guzmaniensis	104
Floridichthys	180	lactarius	107
Carpio	103	alticolus	105
bison	103	anisurus	109
carpio	103	araeopus	106
cutisanserinus	103	ardens	105
cyprinus	103	aureolus	109, 110
damalis	103	aurora	106
difformis	103	bernardini	106
elongatus	104	bostoniensis	105
grayi	103	bubalus	102
labiosus	103	carpio	103, 109
meridionalis	104	catostomus	106
microstomus	104	chamberlaini	107
niger	102	chloropteron	105
nummifer	103	clarkii	104
selene	103	commersonii	105
taurus	102	communis	105
thompsoni	103	conchos	107
tumidus	103	congestus	110
urus	102	cypho	108
vacca	103	cyprinus	103
velifer	103	discobolus	107
vitulus	102	duquesnii	110
carringtoni, Apocope	140	elongatus	101
carringtonii, Apocope	141	erythrus	110
caryi, Acipenser	34	fasciatus	109
Embiotoca	412	fasciolaris	109
Hypsurus	412	fecundus	108
cascajalensis, Brachyrhaphis	187	flexuosus	105
Bryconamericus	97	forsterianus	105, 106
Gambusia	187	gibbosus	109
cassidy, Embiotoca	411	gila	106
castanea, Sidera	92	gracilis	105
castaneola, Sparus	265	griseus	107
castaneum, Macrostoma	167	hudsonius	106
castaneus, Gymnothorax	92	insignis	105, 106
Ichthyomyzon	9	labiatus	106
Notoscopelus	167	latipinnis	107
castelnaudii, Cylindrosteus	37	jesueui	111
castor, Pontinus	372	longirostrum	106
Catablemella	166	machrocheilus	106
brachychir	166	macrolepidotus	111
Cataetx	480	maculosus	107
rubrirostris	480	megastomus	107
simus	480	melanops	109
catalinae, Neothunnus	260	melanotus	137
Catalineta	361	microps	106
Catalufa	323	nanomyzon	106
catalufa, Priacanthus	323	nebuliferus	104
Cataphracti	363	nigricans	107
Cataphractus schoneveldii	395	etowanus	107
cataphractus, Agonus	395	occidentalis	106
Cottus	395	oneida	110
Gasteracanthus	237	pallidus	105
Gasterosteus	237	planiceps	107
cataractae, Gobio	139	plebeius	104
Rhynchichthys	139	pocatello	107
catractus, Leucosomus	117	reticulatus	105
catena, Bassozetus	480, 481	retropinnis	107
Bathynus	481	rex	108
catenata, Echidna	94	rhotæcus	107, 108
Pocilia	179	richardsoni	106
catenatum, Xenisma	179	snyderi	106
catenatus, Gymnothorax	94	sonoriensis	106
catenula, Murænophis	94	sucklii	105
catesbei, Pomotis	302	tahoensis	107
catharinae, Pristipoma	333	texanus	108
Cathetostoma albigutta	454	tsiltoosensis	106
Cathorops	151	tuberculatus	109
gulosus	151	utawana	105
hypophthalmus	151	velifer	103
Cathochænum	341	vittatus	109
Catonotus	292, 293	xanthopus	107
fasciatus	293	catostomus, Catostomus	106
flabellare cumberlandicum	293	Cyprinus	105, 106
lineolatum	293	Phenacobius	142

List of scientific names—Continued

	Page		Page
<i>Catulus</i>	11, 17	<i>cayanus</i> , <i>Pristigaster</i>	45
<i>brunneus</i>	12	<i>cayennensis</i> , <i>Citharichthys</i>	218, 219
<i>cephalus</i>	11	<i>Otolithus</i>	356
<i>saxatilis</i>	11	<i>Vomer</i>	275
<i>uter</i>	12	<i>Cayenna</i>	448
<i>zaniurus</i>	12	<i>guichenoti</i>	448
<i>catulus</i> , <i>Ameiurus nebulosus</i>	154	<i>caymanensis</i> , <i>Gambusia</i>	186
(<i>canicula</i>), <i>Scylliorhinus</i>	13	<i>cayorum</i> , <i>Anchovia chcerostoma</i>	49
<i>Galeus</i>	13	<i>Anchoviella</i>	49
<i>Gobius</i>	440	<i>Corythoichthys</i>	243
<i>Pimelodus</i>	154	<i>Hippichthys</i>	243
<i>catus</i> , <i>Haustor</i>	153	<i>Ogilbia</i>	479, 480
<i>Serranus</i>	311	<i>cayuga</i> , <i>Cottus gracilis</i>	386
<i>Silurus</i>	153	<i>Eucalia inconstans</i>	238
<i>caucanus</i> , <i>Ageneiosus</i>	159	<i>Hybopsis</i>	133
<i>cauda forcipata</i> , <i>Brama marina</i>	265	<i>Notropis</i>	133
<i>cauda nigra</i> , <i>Perca marina</i>	330	<i>cayuga atrocaudalis</i> , <i>Notropis</i>	133
<i>caudacinctus</i> , <i>Prionotus (Anchisomus)</i>	500	<i>Cebidichthyidae</i>	466
<i>caudacuta</i> , <i>Motella</i>	209	<i>Cebidichthys</i>	466
<i>caudafurcatus</i> , <i>Pimelodus</i>	152	<i>cristagalli</i>	466
<i>caudale</i> , <i>Ariosoma</i>	80	<i>violaceus</i>	466
<i>caudalis</i> , <i>Congermuræna</i>	80	<i>cedrosensis</i> , <i>Atherinops insularum</i>	252
<i>Iridio</i>	427	<i>celatus</i> , <i>Batrachus</i>	487
<i>Julis</i>	427	<i>Centaurus</i>	503
<i>Leptocephalus</i>	81	<i>centrale</i> , <i>Cichlasoma</i>	419
<i>Leptocephalus (Microconger)</i>	81	<i>centralis</i> , <i>Parapetenia</i>	419
<i>Microconger</i>	81	<i>Centrarchidae</i>	297
<i>Mixonus</i>	483	<i>Centrarchus</i>	304
<i>Pomacentrus</i>	413	<i>hexacanthus</i>	304, 305
<i>caudanotatus</i> , <i>Mesoprion</i>	326	<i>interruptus</i>	303
<i>caudata</i> , <i>Lamna</i>	16	<i>macropterus</i>	304
<i>Motella</i>	209	<i>maculosus</i>	303
<i>caudatus</i> , <i>Lepidopus</i>	262	<i>obscurus</i>	298
<i>Paraliparis</i>	404	<i>pentacanthus</i>	303
<i>caudicula</i> , <i>Conger</i>	79	<i>pomotis</i>	303
<i>caudilimbatus</i> , <i>Conger</i>	79	<i>tetracanthus</i>	419
<i>Echelus</i>	79	<i>centrarchus</i> , <i>Archocentrus</i>	420
<i>caudimacula</i> , <i>Hæmulon</i>	329	<i>Heros</i>	420
<i>Sargus</i>	338	<i>centrina</i> , <i>Callorhynchus</i>	32
<i>audimaculata</i> , <i>Strongylura</i>	195	<i>Centriscus</i>	245
<i>caudimaculatus</i> , <i>Hemioxocetus</i>	199	<i>scelopax</i>	245
<i>caudofasciata</i> , <i>Limla</i>	191	<i>Centristhmus</i>	319
<i>Caularchus</i>	488	<i>signifer</i>	319
<i>mæandricus</i>	488	<i>Centrobrennius</i>	470
<i>caulias</i> , <i>Sigmistes</i>	391	<i>Centrochromis</i>	415
<i>Caulistius</i>	488	<i>rudis</i>	415
<i>papillifer</i>	488	<i>centrognathos</i> , <i>Zanclus</i>	362
<i>Caulolatilus</i>	357	<i>centrognathus</i> , <i>Zanclus</i>	362
<i>affinis</i>	357	<i>Centrolabrus</i>	424
<i>anomalus</i>	357	<i>exoletus</i>	424
<i>chrysops</i>	357	<i>Centrolophidae</i>	267
<i>cyanops</i>	357	<i>Centrolophus</i>	267
<i>microps</i>	357	<i>liparis</i>	267
<i>princeps</i>	357	<i>morio</i>	267
<i>Caulolepis</i>	232	<i>niger</i>	267
<i>longidens</i>	232	<i>pompilius</i>	267
<i>Caulophryne</i>	511	<i>Centronotus</i>	278, 467
<i>Jordani</i>	511	<i>argenteus</i>	277
<i>Caulophrynidæ</i>	511	<i>conductor</i>	278
<i>Caulopus</i>	171	<i>cristagalli</i>	468
<i>altivelis</i>	171	<i>fasciatus</i>	467
<i>borealis</i>	171	<i>gardenii</i>	281
(<i>Caulopus</i>) <i>poeyi</i> , <i>Alepidosaurus</i>	171	<i>islandicus</i>	471
<i>caulopus</i> , <i>Homesthes</i>	463	<i>lætus</i>	468
<i>aurina</i> , <i>Clarkina</i>	118	<i>spinus</i>	281
<i>caurinus</i> , <i>Cyprinus</i>	118	<i>Centropholis</i>	266
<i>Cyprinus (Leuciscus)</i>	118	<i>goodei</i>	266
<i>Leuciscus</i>	112, 118	<i>petersi</i>	266
<i>Mylocheilus</i>	118	<i>centropleura</i> , <i>Uranidea semiscabra</i>	383
<i>Pteropodus</i>	369	<i>Centropomidae</i>	305
<i>Sebastes</i>	369	<i>Centropomus</i>	305
<i>cauthœcum</i> , <i>Gobiosoma</i>	446	<i>affinis</i>	306
<i>cauthœcus</i> , <i>Barbulifer</i>	446	<i>albus</i>	307
<i>cavalla</i> , <i>Cybiium</i>	257	<i>armatus</i>	306
<i>Sierra</i>	257	<i>appendiculatus</i>	305
<i>cavernosus</i> , <i>Bathysgadus</i>	207	<i>brevis</i>	306
<i>Hymenoccephalus</i>	207	<i>cuvieri</i>	306
<i>cavifrons</i> , <i>Ambloplites</i>	303	<i>ensiferus</i>	306
<i>Diagramma</i>	335	<i>grandoculatus</i>	306
<i>Hemitripterus</i>	393	<i>lucioperca undecimalis</i>	305
<i>Joelinus</i>	375	<i>luteus</i>	281
<i>Tarandichthys</i>	375	<i>medius</i>	306
<i>Caxis</i>	325	<i>mexicanus</i>	306
<i>caxis</i> , <i>Sparus</i>	325	<i>nigrescens</i>	306
<i>cayanensis</i> , <i>Lutjanus</i>	354	<i>parallelus</i>	306

List of scientific names—Continued

	Page		Page
<i>Centropomus pectinatus</i>	306	<i>Ceratias, hollbolli</i>	508
<i>pedimacula</i>	306	<i>Ceraticthys</i>	137
<i>robalito</i>	306	<i>physignathus</i>	136
<i>seaber</i>	306	<i>prosthernius</i>	136
<i>undecimalis</i>	305, 306	<i>smithi</i>	145
<i>undecim-radiatus</i>	305	<i>squamilentus</i>	136
<i>unionensis</i>	306	<i>vigilax</i>	137, 144, 145
<i>viridis</i>	306	<i>Ceratidae</i>	508
<i>Centropristes</i>	317	<i>Ceratobatis</i>	32
<i>ayresi</i>	318	<i>robertsi</i>	32
<i>fusculus</i>	319	<i>Ceratocottus</i>	381
<i>merus</i>	312	<i>dicerus</i>	381
<i>nigricans</i>	317	<i>lucasi</i>	382
<i>oeyurus</i>	318	<i>Ceratoptera</i>	32
<i>rufus</i>	318	<i>Ceratoscopelus</i>	167
<i>striatus</i>	317	<i>madeirensis</i>	167
<i>subligarius</i>	321	<i>Ceraticthys</i>	137, 144
<i>tabacarius</i>	319	<i>cumingii</i>	138
<i>Centropristis</i>	317	<i>cyclotis</i>	137
<i>annularis</i>	319	<i>hyalinus</i>	137
<i>aurorubens</i>	327, 324	<i>hypsinotus</i>	138
<i>brasilensis</i>	320	<i>labrosus</i>	138
<i>dispilurus</i>	320	<i>leptocephalus</i>	137
<i>macrophthalmus</i>	328	<i>lucens</i>	137
<i>macropoma</i>	318	<i>micropogon</i>	137
<i>subligarius</i>	320	<i>monacus</i>	138
<i>Centropyge</i>	361	<i>physignathus</i>	136
<i>clarionensis</i>	361	<i>prosthernius</i>	136
<i>lunata</i>	361	<i>sallaei</i>	116
<i>passer</i>	361	<i>smithi</i>	145
<i>Centroscyllum</i>	21	<i>squamilentus</i>	136
<i>fabricii</i>	21	<i>sterletus</i>	139
<i>Centroscyrmus</i>	21	<i>stigmaticus</i>	137
<i>coelepis</i>	21	<i>ventricosus</i>	141
<i>centroura, Raja</i>	28	<i>vigilax</i>	137, 144, 145
<i>centrourus, Pastinachus</i>	28	<i>zanemus</i>	138
<i>Centrorhynchus</i>	28	<i>Ceratus uranoscopus</i>	508
<i>spadiceus</i>	87	<i>Ceratoscopelus</i>	167
<i>cepediana, Megalops</i>	46	<i>madeirensis</i>	167
<i>cepedianum, Dorosoma</i>	46	<i>cercostigma, Cyprinella</i>	130
<i>cepedianum exile, Dorosoma</i>	46	<i>Erogala</i>	130
<i>cepedianus, Lophotes</i>	215	<i>Cerdale</i>	473
<i>Priacanthus</i>	323	<i>ionthas</i>	473
<i>Cephacandia</i>	408	<i>cerdale, Carcharias</i>	16
<i>Cephalacanthus</i>	408	<i>Carcharhinus</i>	16
<i>spindrella</i>	408	<i>Scytalina</i>	473
<i>Cephalocassis</i>	149	<i>Cerdalidae</i>	472
<i>cephaloides, Cottus</i>	389	<i>Cerdo</i>	210
<i>Cephalopholis</i>	309, 425	<i>cerea, Menidia beryllina</i>	247
<i>argus</i>	309	<i>Cerna</i>	310
<i>fulvus</i>	309	<i>acutirostris lata</i>	315
<i>fulvus punctatus</i>	309	<i>macrogenis</i>	315
<i>ruber</i>	309	<i>nebulosa</i>	315
<i>stellatus</i>	309	<i>sicana</i>	312
<i>taeniops</i>	309	<i>cernium, Polyprion</i>	308
<i>Cephalopolis nigripinnis</i>	309	<i>cervinum, Lepophidium</i>	484
<i>Cephaloptera johni</i>	32	<i>Lepophidium</i>	484
<i>manta</i>	32	<i>cervinus, Ptychostomus</i>	111
<i>vampyrus</i>	32	<i>Scartomyzon</i>	111
<i>Cephalopterus</i>	31	<i>Teretulus</i>	111
<i>giorna</i>	32	<i>cervus, Synanceia</i>	381
<i>hypnotomus</i>	32	<i>Cestracion</i>	18
<i>manta</i>	32	<i>francisci</i>	10
<i>olfersi</i>	32	<i>pantherinus</i>	10
<i>vampyrus</i>	32	<i>quoyi</i>	10
<i>Cephaloscyllium</i>	11	<i>Cestraciontes</i>	10
<i>uter</i>	12	<i>Cestreus</i>	354
<i>Cephalus</i>	503	<i>carolinensis</i>	354
<i>cephalus, Brycon</i>	98	<i>prædatorius</i>	354
<i>Catulus</i>	11	<i>Cestrorhinus</i>	18
<i>Gobiesox</i>	488, 489	<i>cetaceus, Squalus</i>	20
<i>Mugil</i>	252, 253	<i>Cetengraulis</i>	51
<i>Paraliparis</i>	404	<i>edentulus</i>	51
<i>Scylliorhinus</i>	11	<i>garmani</i>	51
<i>Semotilus</i>	117	<i>gilberti</i>	51
<i>Cephola trachyptera</i>	216	<i>mysticetus</i>	51
<i>Cephus</i>	210	<i>Cetomimidae</i>	172
<i>Cepolopolis</i>	477	<i>Cetomimus</i>	172
<i>cerapalmus, Opsanus</i>	487	<i>gillii</i>	172
<i>cerasinus, Gobiesox</i>	489	<i>storeri</i>	172
<i>Hypsilepis cornutus</i>	128	<i>Cetorhinidae</i>	20
<i>Luxilus</i>	128	<i>Cetorhinus</i>	20
<i>Ceratacanthus</i>	495	<i>maximus</i>	20
<i>schoepfi</i>	495	<i>shavianus</i>	20
<i>Cerantias</i>	508	<i>Cetunculi</i>	171

List of scientific names—Continued

	Page		Page
<i>Chænobryttus</i>	302	<i>chagresi</i> , <i>Pimelodus</i>	158
<i>antistius</i>	303	<i>Thyrina</i>	249
<i>gulosus</i>	302	<i>Xenocara</i>	160
<i>Chænomugil</i>	254	<i>chalcum</i> , <i>Pristipoma</i>	335
<i>proboscideus</i>	254	<i>chaleus</i> , <i>Orthopristis</i>	335
<i>Chænophrýne</i>	510	<i>Chaleinopsis</i>	98
<i>longiceps</i>	510	<i>chagresensis</i>	98
<i>Chænopsetta</i>	223	<i>striatulus</i>	98
<i>Chænopsidæ</i>	465	<i>chalcogramma</i> , <i>Theragra</i>	209
<i>Chænopsis</i>	465	<i>chalcogrammus</i> , <i>Gadus</i>	209
<i>alepidota</i>	465	<i>chalcogrammus lucensis</i> , <i>Pollachius</i>	209
<i>lucius</i>	465	<i>chalinus</i> , <i>Epinephelus</i>	315
<i>ocellata</i>	465	<i>Chalinura</i>	204
<i>ocellatus</i>	465	<i>brevibarbis</i>	204
<i>chætirhamphus</i> , <i>Anteliochimæra</i>	33	<i>filifera</i>	204
<i>Chætodipterus</i>	358	<i>occidentalis</i>	204
<i>faber</i>	358	<i>serrula</i>	204
<i>zonatus</i>	358	<i>simula</i>	204
<i>Chætodon</i>	359	<i>spinulosa</i>	204
<i>alepidotus</i>	266	<i>Chalinurus</i>	204
<i>arcuatus</i>	360	<i>challengeri</i> , <i>Notacanthus</i>	76
<i>atæniatus</i>	360	<i>Polyacanthonotus</i>	76
<i>aureus</i>	360	<i>chalybeus</i> , <i>Hypsopsis</i>	127
<i>auriga</i>	359	<i>Hydrophlox</i>	127
<i>aya</i>	360	<i>chalybeus abbotti</i> , <i>Notropis</i>	127
<i>bimaculatus</i>	360	<i>chalybeus</i> , <i>Chlorophthalmus</i>	165
<i>bricei</i>	359	<i>Hypthalonedrus</i>	165
<i>capistratus</i>	359	<i>chamæleonticeps</i> , <i>Lopholatilus</i>	357
<i>chirurgus</i>	362	<i>chamberlaini</i> , <i>Catostomus</i>	107
<i>cellaris</i>	361	<i>Chasmistes</i>	107
<i>collaris</i>	359	<i>Cottus</i>	385
<i>cornutus</i>	362	<i>Hudsonius</i>	132
<i>couaga</i>	362	<i>Notropis</i>	132
<i>cyprinaceus</i>	340	<i>chamensis</i> , <i>Ophichthus</i>	88
<i>ephippium</i>	359	<i>Chamida</i>	40
<i>faber</i>	358	<i>Channomuræna</i>	95
<i>glaucus</i>	376	<i>cubensis</i>	95
<i>gracilis</i>	360	<i>vittata</i>	95
<i>humeralis</i>	360	<i>Channo-Muræna</i>	95
<i>lanceolatus</i>	352, 353	<i>Chanos</i>	40
<i>lineolatus</i>	359	<i>arabicus</i>	40
<i>littoralis</i>	360	<i>cyprinella</i>	40
<i>longirostris</i>	359	<i>chanos</i> , <i>Mugil</i>	40
<i>lutescens</i>	360	<i>chantenay</i> , <i>Rain</i>	25
<i>marginatus</i>	415	<i>chapala</i> , <i>Chirostoma</i>	251
<i>mauriti</i>	415	<i>Faleula</i>	142
<i>nigrirostris</i>	360	<i>Faleularius</i>	142
<i>ocellatus</i>	360	<i>Chapalichthys</i>	184
<i>ornatissimus</i>	359	<i>eneastus</i>	184
<i>oviformis</i>	358	<i>chaperi</i> , <i>Acanthoclinus</i>	457
<i>parvæ</i>	361	<i>Paraclinus</i>	457
<i>paru</i>	360	<i>Chapinus</i>	496
<i>plumieri</i>	358	<i>bicaudalis</i>	497
<i>rhomboides</i>	276, 277	<i>chapmani</i> , <i>Pisenes</i>	269
<i>sargoides</i>	415	<i>Tænioconger</i>	82
<i>saxatilis</i>	414	<i>Characacidium</i>	100
<i>sedentarius</i>	360	<i>fasciatum</i>	100
<i>sohar</i>	362	<i>marshi</i>	100
<i>sordidus</i>	414	<i>Characacindæ</i>	95
<i>squamulosus</i>	361	<i>Characodon</i>	182
<i>striatus</i>	359	<i>bilineatus</i>	183
<i>triangulum</i>	359	<i>eiseni</i>	183
<i>tricolor</i>	361	<i>eneastus</i>	184
<i>tristegus</i>	362	<i>ferugineus</i>	183
<i>unicornis</i>	362	<i>furcidens</i>	183
<i>unicolor</i>	360	<i>garmani</i>	183
<i>unimaculatus</i>	359	<i>geddesi</i>	182
<i>Chætodon</i> , <i>Cottus</i>	487	<i>lateralis</i>	182, 183
<i>Mesogonistius</i>	303	<i>luitpoldi</i>	183, 184
<i>Pomotis</i>	303	<i>multiradiatus</i>	183
<i>Chætodontidae</i>	359	<i>variatus</i>	182
<i>Chætodontops</i>	359, 360	<i>Charax maxilla superiore longiore</i>	100
<i>Chætostoma</i>	160	<i>chartes</i> , <i>Platichthys</i>	221
<i>fischeri</i>	161	<i>charybdis</i> , <i>Lepomis</i>	303
<i>loborhynchus</i>	160	<i>Chasmistes</i>	108
<i>Chætostomus</i>	160	<i>brevirostris</i>	108
<i>acridolepis</i>	161	<i>chamberlaini</i>	107
<i>fischeri</i>	161	<i>copei</i>	108
<i>heteracanthus</i>	161	<i>eijus</i>	108
<i>latifrons</i>	160	<i>fecundus</i>	108
<i>chacresensis</i> , <i>Chaleinopsis</i>	161	<i>liorus</i>	108
<i>chagresi</i> , <i>Ancistrus</i>	160	<i>luxatus</i>	108
<i>Menidia</i>	249	<i>stomias</i>	108
<i>Pimelodella</i>	158	<i>tahoensis</i>	107

List of scientific names—Continued

	Page		Page
Chasmodes	462	Chilomycterus californiensis	502
bosquianus	462	puncticulatus	502
jenkinsi	463	Chilorhinus	83
novemlineatus	462	suensonii	83
quadrifasciatus	462	Chimara	32
saburrae	462	abbreviata	33
Chatoëssus	46	affinis	33
ellipticus	46	collei	33
eumorphus	44	cristata	32
mexicanus	46, 47	mediterranea	32
signifer	44	mirabilio	33
Chauliodontidae	71	monstrosa	32
Chauliodus	71	plumbea	33
barbatus	71	Chimæridæ	32
macouni	71	Chimæroidei	32
richardsoni	71	chinensis, Aulostomus	244
sloani	71	Balistes	494
Chaunacidae	505	Tachysurus	150
Chaunax	506	chionostigma, Echidna	94
nuttingi	506	chiostictus, Entomacrodus	463
pictus	506	Salarias	463
Cheilichthys	499	chiquita, Aboma	443
annulatus	499	Gobius	443
asellus	500	Chirocentron	45
fürthi	499	bleekeriana	45
fürthii	499	tæniatus	45
pachygaster	499	Chirolophidæ	466
politus	499	Chirolophus japonicus	466
testudineus	499	Chironectes	505
trichocephalus	499	arcticus	504
(Cheilichthys) pachygaster, Tetrodon	499	lævigatus	504, 505
Cheilo auratus	425	mentzell	505
Cheilodipterus	296	mentsellii	506
acoupa	354	multiocellatus	506
affinis	296	pictus	504
heptacanthus	280	principis	505
lineatus	296	seaber	505
macrodon	296	sonntagii	506
Cheilonemus	117	tenebrosus	505
Cheilotrema	348	tigris	506
Cheiragonus	393	tumidus	504
Cheirodon gorgonæ	96	Chiropsis constellatus	373
insignis	96	nebulosus	373, 374
Chelmo pelta	359	Chirostoma	250
Chelmon aculeatus	359	arge	250
chelonæ, Allector	484	attenuatum	250
Cheloniger	333	bartoni	250
chemnitzii, Notacanthus	75	beryllinum	247
cheneyi, Cottogaster	286	breve	250
Imostoma	286	chapelæ	251
Cheonda	117, 118	consocium	251
cerulea	120	crystallinum	251
cooperi	118	diazii	251
copel	119	estor	250, 251
egregia	118	grandocule	251
evermanni	118	guatemalensis	249
humboldti	119	humboldtianum	250
hydrophlox	119	jordani	250
microdon	118	labaræ	250
modesta	120	lerna	251
montana	119	lucius	251
Cherna	311	mezquital	250
cherna, Anthias	311	ocotlane	251
chesteri, Phycis	213	patzcuaro	250
Urophycis	213	promelas	251
Chiasmodon	452	regani	250
niger	452	sicculum	251
subniger	452	sphyræna	251
Chiasmodontidae	452	vagrans	248
Chiasmodus	452	vomerina	250
chickasavensis, Luxilus	130	zirahuen	250
chiuahua, Moniana	132	chirurgus, Chaetodon	362
Notropis	132	Chirus	373
Chilaria	485	balias	374
chilensis, Brama	265	guttatus	373
Sarda	259	maculo-seriatus	373
chilensis, Exocoetus	200	ordinatus	374
Pelamys	259	pictus	374
chiliticus, Hybopsis	127	trigrammus	374
Hydrophlox	127	chirus, Phytichthys	469
Chilomycterus	502	Xiphister	469
affinis	502	chisoyensis, Poecilia	192
antillarum	502	chisso, Blennius	212
atinga	502		
briareos	502		

List of scientific names—Continued

	Page		Page
<i>Chitonotus</i>	375	<i>Chromis epicurorum</i>	280
<i>megacephalus</i>	375	<i>fenestrata</i>	416
<i>pugetensis</i>	375	(<i>Furcaria</i>) <i>atrilobata</i>	412
<i>chittendeni</i> , <i>Cyclopsetta</i>	221	<i>fusco-maculatus</i>	419
<i>chlamydes</i> , <i>Bollmannia</i>	443	<i>chromis</i> , <i>Hæmulon</i>	329
<i>chlevarides</i> , <i>Gymnothorax</i>	93	<i>Pogonius</i>	352
<i>Sidera</i>	93	<i>Sparus</i>	413
<i>Chlopsis</i>	82	<i>Chrosomus</i>	113
<i>bicolor</i>	82	<i>dakotensis</i>	113
<i>equatorialis</i>	82	<i>eos</i>	113
<i>gilberti</i>	82	<i>erythrogaster</i>	113
<i>chlora</i> , <i>Chiola</i>	135	<i>oreas</i>	113
<i>Chlorichthys</i>	428	<i>pyrrhogaster</i>	113
<i>chloris</i> , <i>Scarus</i>	432	<i>chrosomus</i> , <i>Hybopsis</i>	127
<i>chloristia</i> , <i>Codoma</i>	129	<i>Hydrophlox</i>	127
<i>Erogala</i>	129	<i>chrysargyreum</i> , <i>Hæmulon</i>	330, 331
<i>chlorocephalus</i> , <i>Hybopsis</i>	127	<i>chrysargyreus</i> , <i>Brachygenys</i>	331
<i>Hydrophlox</i>	127	<i>chryseus</i> , <i>Rhinoberyx</i>	235
<i>chloropteron</i> , <i>Catostomus</i>	105	<i>Chrysiptera</i>	414
<i>chloropterum</i> , <i>Plectropoma</i>	312	<i>Chrystitis</i> , <i>Dionda</i>	144
<i>chloropterus</i> , <i>Alphestes</i>	312	<i>chrysocephalus</i> , <i>Luxilus</i>	128
<i>Chlorophthalmidae</i>	165	<i>Luxilus cornutus</i>	128
<i>Chlorophthalmus</i>	165	<i>chrysochloris</i> , <i>Pomolobus</i>	41, 42
<i>agassizii</i>	165	<i>chrysogaster</i> , <i>Agosia</i>	140
<i>chalybeius</i>	165	<i>chrysoleuca</i> , <i>Corvina</i>	346
<i>mento</i>	165	<i>chrysoleucas</i> , <i>Leucosomus</i>	117
<i>truculentus</i>	165	<i>Notemigonus</i>	117
<i>Chloroscombrus</i>	276	<i>chrysoleucus</i> , <i>Nector</i>	346
<i>caribbeus</i>	276	<i>chrysomelanurus</i> , <i>Sparus</i>	311
<i>chrysurus</i>	276	<i>chrysomelas</i> , <i>Pteropodus</i>	369
<i>orqueta</i>	276	<i>Sebastichthys</i>	369
<i>stirurus</i>	276	<i>Chrysoperca</i>	307
<i>chlorosoma</i> , <i>Vaillantia</i>	288	<i>interrupta</i>	307
<i>chlorostictus</i> , <i>Sebastichthys</i>	367	<i>Chrysophrys aculeata</i>	336
<i>Sebastomus</i>	367	<i>chrysops</i> , <i>Caulolatilus</i>	357
<i>chlorostomus</i> , <i>Tristropis</i>	314	<i>Latilis</i>	357
<i>chlorurum</i> , <i>Plectropoma</i>	321	<i>Lepibema</i>	307
<i>Chlorurus</i>	433	<i>Ophisurus</i>	88
<i>chlorurus</i> , <i>Hypoplectrus unicolor</i>	321	<i>Perca</i>	307
<i>choacensis</i> , <i>Gephyrocharax</i>	96	<i>Sparus</i>	336
<i>Choroichthys</i>	243	<i>Stenotomus</i>	336
<i>valenciennesi</i>	243	<i>chrysopsis</i> , <i>Hyodon</i>	41
<i>Chorojulius arangoi</i>	426	<i>chrysoptera</i> , <i>Perca</i>	335
<i>grandisquamis</i>	426	<i>chrysopteron</i> , <i>Hæmulon</i>	329
<i>chorostoma</i> , <i>Anchoviella</i>	48	<i>Sparisoma</i>	432
<i>chorostomus</i> , <i>Engraulis</i>	48	<i>chrysoteronus</i> , <i>Leuciscus</i>	117
<i>chorset</i> , <i>Labrus</i>	424	<i>Orthopristis</i>	335
<i>chorset fulva</i> , <i>Labrus</i>	424	<i>Perca</i>	335
<i>Chologaster</i>	194	<i>Scarus</i>	432
<i>agassizii</i>	194	<i>chrysos</i> , <i>Scomber</i>	272
<i>avitus</i>	194	<i>Chrysofusus</i>	216
<i>cornutus</i>	194	<i>chrysotus</i> , <i>Fundulus</i>	177
<i>papilliferus</i>	194	<i>Zygonectes</i>	177
<i>Chondrostoma pullum</i>	146	<i>chysura</i> , <i>Bairdiella</i>	345
<i>Chondropterygii</i>	10	<i>chysurus</i> , <i>Caranx</i>	345
<i>Chonophorus</i>	442	<i>Chloroscombrus</i>	276
<i>banana</i>	442	<i>Dipterodon</i>	345
<i>bucculentus</i>	442	<i>Glyphidodon</i>	415
<i>contractus</i>	442	<i>Glyphisodon</i>	415
<i>mexicanus</i>	442	<i>Ocyurus</i>	327
<i>nelsoni</i>	442	<i>Scomber</i>	276
<i>chordatus</i> , <i>Saccopharynx</i>	95	<i>Sparus</i>	327
<i>Choregon</i>	66	<i>Stegastes</i>	415
<i>Chorinemus altus</i>	278	<i>chrysus</i> , <i>Eupomacentrus</i>	414
<i>palometa</i>	278	<i>chrysypa</i> , <i>Anguilla</i>	77
<i>saltans</i>	277	<i>chucunaque</i> , <i>Rivulus</i>	180
<i>Chorististium</i>	315	<i>chucunaque sucubti</i> , <i>Rivulus</i>	180
<i>rubrum</i>	315	<i>chuss</i> , <i>Blennius</i>	213
<i>Chriodorus</i>	190	<i>Urophycis</i>	213
<i>atherinoides</i>	190	<i>cibarius</i> , <i>Ammocetes</i>	10
<i>Chriolax</i>	407	<i>Cibi amarilla</i>	272
<i>Chriolepis</i>	438	<i>cibi</i> , <i>Caranx</i>	272
<i>minutillus</i>	438	<i>Cibotion</i>	496
<i>Chriomitra</i>	257	<i>ciatricosus</i> , <i>Balistes</i>	493
<i>concolor</i>	257	<i>Pleuronectes</i>	227
<i>Chriope</i>	133, 135, 136	<i>ciatrifer</i> , <i>Lycodes</i>	175
<i>alboides</i>	136	<i>Cichla cinea</i>	303
<i>Chriopeps</i>	175	<i>fasciata</i>	298
<i>goodei</i>	175	<i>floridana</i>	297
<i>Christoma feryllinum</i>	247	<i>minima</i>	298
<i>peninsule</i>	247	<i>ohiensis</i>	298
<i>Chromides</i>	412	<i>storeria</i>	304
<i>Chromis</i>	280, 413	<i>Cichlasoma</i>	416
<i>bermude</i>	413	<i>acutum</i>	422
<i>enchrysurus</i>	413	<i>alfari</i>	419

List of scientific names—Continued

	Page		Page
<i>Cichlasoma calobrense</i>	417	<i>circularis</i> , <i>Raja</i>	24
centrale.....	419	<i>Raja</i>	24
dorsatum.....	420	<i>circumnotatus</i> , <i>Scarus</i>	433
eigenmanni.....	417	<i>cirratum</i> , <i>Ginglymostoma</i>	12
evermanni.....	420	<i>cirratus</i> , <i>Phycis</i>	212
frontale.....	417	<i>Squalus</i>	12
gadovii.....	417	<i>Cirrhit</i> es.....	358
globosum.....	421	<i>rivulatus</i>	358
granadense.....	421	<i>Cirrhitichthys</i>	358
hedricki.....	421	<i>Cirrhitidæ</i>	358
laure.....	421	<i>Cirrhitus</i>	358
lethrinus.....	420	<i>betaurus</i>	358
maculicauda.....	421	<i>maculatus</i>	358
meeki.....	416	<i>rivulatus</i>	358
milleri.....	417	<i>cirrhosum</i> , <i>Lepisoma</i>	459
mojarra.....	417	<i>cirrhosus</i> , <i>Blepsias</i>	382
multifasciatum.....	418	<i>Hypostomus</i>	160
nigratum.....	418	<i>Trachinus</i>	382
punctatum.....	417	<i>Cirrostromi</i>	7
robertsoni.....	420	<i>Cisco</i>	62, 63
septemfasciatum.....	421	<i>cismontanus</i> , <i>Coregonus williamsoni</i>	65
sexfasciatum.....	421	<i>Prosopium williamsoni</i>	65
spinosissimum immaculatum.....	420	<i>Citharichthys</i>	218, 219
steindachneri.....	419	<i>æthalion</i>	218
teapæ.....	417	<i>arctifrons</i>	219
tenuis.....	419	<i>arenaceus</i>	219
<i>tuyrensis</i>	421	<i>cayennensis</i>	218, 219
<i>umbriferum</i>	417	<i>dinoceros</i>	219
<i>zonatum</i>	417	<i>fragilis</i>	218
(<i>Cichlasoma</i>) <i>spinosissimus</i> , <i>Heros</i>	420	<i>gilberti</i>	219
<i>Cichla</i> urus.....	416	<i>guatemalensis</i>	219
<i>angulifer</i>	416	<i>latifrons</i>	218
<i>bifasciatus</i>	416	<i>macrops</i>	219
<i>calobrensis</i>	417	<i>micros</i>	219
<i>deppii</i>	416	<i>microstomus</i>	219
<i>fenestratum</i>	416	<i>pætilus</i>	218
<i>godmanni</i>	416	<i>panamensis</i>	221
<i>guttulatus</i>	416	<i>platophrys</i>	219
<i>intermedius</i>	416	<i>sordidus</i>	218
<i>meeki</i>	416	<i>spilopterus</i>	219
<i>microphthalmus</i>	416	<i>stigmaeus</i>	219
<i>melanurus</i>	416	<i>sumichrasti</i>	219
<i>umbrifer</i>	417	<i>uhleri</i>	219
<i>Cichlidæ</i>	416	<i>unicornis</i>	219
<i>cigonella</i> , <i>Belone</i>	195	<i>ventalis</i>	220
<i>ciliaris</i> , <i>Anglichthys</i>	361	<i>xanthostigmus</i>	218
<i>Balistes</i>	492	<i>Citharus</i>	222
<i>Chaetodon</i>	361	<i>Citræodus</i>	359
<i>Zeus</i>	274	<i>Citrinellus</i>	420
<i>Ciliata</i>	208	<i>citrinellus</i> , <i>Astatheros</i>	422
<i>argentata</i>	258	<i>Heros</i>	422
<i>glauca</i>	208	<i>Citula</i>	273, 274
<i>ciliatus</i> , <i>Balistes</i>	494	<i>dorsalis</i>	274
<i>Blennius</i>	473	<i>orthogramma</i>	274
<i>Entosphenus</i>	10	<i>citirensis</i> , <i>Oxyloricaria</i>	162
<i>Epinephelus</i>	365	<i>civilis</i> , <i>Hybognathus</i>	144
<i>Monacanthus</i>	494	<i>clara</i> , <i>Menidia</i>	248
<i>Petromyzon</i>	10	<i>claras</i> , <i>Pimelodus</i>	159
<i>Sebastosomus</i>	365	<i>Silurus</i>	158, 159
<i>cimbrius</i> , <i>Enchelyopus</i>	209	<i>Claricola</i>	292
<i>Gadus</i>	209	<i>alabamæ</i>	292
<i>cinnamini</i> , <i>Acipenser</i> (<i>Antæceus</i>).....	35	<i>juliæ</i>	292
<i>cincta</i> , <i>Parapetenia tetracantha</i>	419	<i>squamiceps</i>	292
<i>cinctus</i> , <i>Atopichthys</i>	54	<i>whippii</i>	292
<i>Dactyloscopus</i>	454	<i>clarionensis</i> , <i>Centropyge</i>	361
<i>Heros tetracanthus</i>	419	<i>Holacanthus</i>	361
<i>Julis</i>	427	<i>clarionis</i> , <i>Xesurus</i>	363
<i>cinerea</i> , <i>Alutera</i>	496	<i>clarius</i> , <i>Pimelodus</i>	159
<i>Amia</i>	38	<i>clarki</i> , <i>Artediellus</i>	377
<i>Etheostoma</i>	290	<i>Blennicottus</i>	377
<i>Percæ marina gibbosa</i>	329	<i>Bogoslövius</i>	204
<i>cinereum</i> , <i>Aulostoma</i>	245	<i>clarkii</i> , <i>Catostomus</i>	104
<i>cinereus</i> , <i>Aulostomus</i>	245	<i>Notolepidomyzon</i>	104
<i>Gerres</i>	341	<i>Salmo</i>	56
<i>Macrourus</i>	205	<i>clarkii declivifrons</i> , <i>Salmo</i>	57
<i>Macrurus</i>	205	<i>clarkii jordanii</i> , <i>Salmo</i>	57
<i>Microspatodon</i>	416	<i>clarkii tahoensis</i> , <i>Salmo</i>	57
<i>Mugil</i>	341	<i>Clarkina</i>	118
<i>Nothonotus</i>	290	<i>caurina</i>	118
<i>peltatus</i> , <i>Turdus</i>	341	<i>clarus</i> , <i>Vigil</i>	288
<i>cingulatus</i> , <i>Auchenopteris</i>	457	<i>clathratus</i> , <i>Labrax</i>	317
<i>Fundulus</i>	177	<i>Paralabrax</i>	317
<i>Pomacanthus</i>	360	<i>clavata</i> , <i>Raja</i>	25
<i>Zygonectes</i>	177	<i>claviformis</i> , <i>Moxostoma</i>	109
<i>cingulus</i> , <i>Atopichthys</i>	54		

List of scientific names—Continued

	Page		Page
claviger Cottus.....	381	Clupea macrophthalma.....	43
Enophrys.....	381	mattowacca.....	42
clavilatum, Acutomentum.....	366	mediociris.....	41, 42
clavilatus, Sebastodes.....	366	megalops.....	42
claytonii, Gobius.....	439	membras.....	41
Rhingobius.....	439	menhaden.....	44
clepsydra, Muræna.....	90	micropus.....	46
Clepticus.....	426	minima.....	41
parra.....	426	mirabilis.....	41
clevelandi, Phoxinus.....	118	neglecta.....	44
Clevelandia.....	445	pallasii.....	41
ios.....	445	parvula.....	41, 42
longipinnis.....	445	pilechardus.....	42
rosæ.....	445	pseudoharengus.....	42
Clinidae.....	155, 164	pusilla.....	42
Clinocottus.....	390	sadtina.....	46
analis.....	390	sapidissima.....	42
australis.....	390	sternica.....	99
australis.....	390	stolifera.....	44
subarras.....	390	thrissa.....	44
Clinostomus.....	120	thrissina.....	44
affinis.....	121	tyrannus.....	44
elongatus.....	120	vernalis.....	42
funduloides.....	121	villosa.....	66
hydrophlox.....	119	virescens.....	42
margarita.....	116	vittata.....	41
montanus.....	119	clupeiformis, Coregonus.....	62, 64, 65
pandora.....	120	Salmo.....	64
phlegothontis.....	121	clupeiformis albus, Coregonus.....	65
tania.....	119	Clupeide.....	41
vandoisulus.....	121	clupeiformis, Argyrosomus.....	61
clintonii, Lepidosteus.....	37	Coregonus.....	62
Clinus aculeatus.....	470	Clupeoidel.....	40
binaculatus.....	460	clupeoides, Anchovia.....	50
canariensis.....	459	Engraulis.....	50
capillatus.....	459	clupeola, Harengula.....	43
delalandi.....	459	Clypeocottus.....	381
exides.....	458	robustus.....	381
gilli.....	660	Cobitis heteroclitus.....	175
gobio.....	457	killifish.....	176
macrocephalus.....	457	macrolepidota.....	176
maculatus.....	470	majalis.....	176
medius.....	470	tiaroga.....	143
moltri.....	471	coccineus, Lycoles.....	476
nebulosus.....	471	Searius.....	432
nigripinnis.....	456	Cocconenia.....	127
nuchipinnis.....	459	cocconensis, Coccotis.....	127
ocellatus.....	459	Hypsilepis.....	127
ocellifer.....	458	coccol, Rhinoscopelus.....	169
pectinifer.....	459	Scopelus.....	168, 169
præcisus.....	470	Coccolus.....	127
unimaculatus.....	470	annectens.....	217
zonifer.....	469	Coccotis.....	127
Cliola.....	144	brimleyi.....	127
camura.....	129	cocconensis.....	127
chlora.....	135	macdonaldi.....	127
montiregis.....	131	zonatus.....	128
smithii.....	145	zonistius.....	128
velox.....	145	Cochlognathus.....	146
vivax.....	145	biguttatus.....	146
clippertonense, Ostracion.....	496	ornatus.....	146
clodalis, Hiodon.....	40	cocconensis, Cotylopus.....	448
Clodipterus.....	296	cocosa, Echidna.....	94
Clupanodon.....	44	Codoma.....	143
Clupea.....	41	chloristia.....	129
estivalis.....	42	eurystoma.....	130
africana.....	44	ornata.....	143
alosa.....	42	topeka.....	143
anchovia.....	43	trichroistia.....	130
atherinoides.....	51	vittata.....	143
brasiliensis.....	40	cocca, Muræna.....	84
caerulea.....	41	Cocclia.....	84
carolinensis.....	44	brandieriana.....	84
elongata.....	41	Coccolophis.....	87
encrasichelus.....	47	compar.....	87
fasciata.....	42	Coccolia basanium.....	86
halec.....	41	coccolus, Gastrobranchus.....	8
harengus.....	41	coccolopsis, Centrosomus.....	21
var.....	41	coclestinus, Pseudoscarus.....	435
heterura.....	46	Searius.....	435
hudsonia.....	132	Colorhynchus.....	207
intrans.....	42	caribbeus.....	207
leptorhynchus.....	46	carminatus.....	207
leachi.....	41	laville.....	207
lineolata.....	41	occa.....	207
macrocephala.....	40		

List of scientific names—Continued

	Page		Page
<i>Cælorhynchus scaphopsis</i>	207	<i>Compsura</i>	95
(<i>Cælorhynchus</i>) <i>scaphopsis</i> , <i>Macrurus</i>	207	<i>gorgone</i>	96
<i>cenicola</i> , <i>Pæcilia</i>	175	<i>heterura</i>	95
<i>cenosus</i> , <i>Pimelodus</i>	153	<i>concatenatus</i> , <i>Ostracion</i>	496
<i>Pleuronichthys</i>	225	<i>concentricus</i> , <i>Urobatis</i>	30
<i>cærulea</i> , <i>Tautoga</i>	424	<i>Conchognathus</i>	78
<i>cæruleopunctata</i> , <i>Acara</i>	423	<i>grimaldii</i>	78
<i>Æquidens</i>	423	<i>conchorum</i> , <i>Menidia</i>	247
<i>cæruleus</i> , <i>Cyclopterus</i>	397	<i>conehos</i> , <i>Catostomus</i>	107
<i>cæruleo-aureus</i> , <i>Har, e</i>	425	<i>concinus</i> , <i>Ambiodon</i>	352
<i>cæruleopunctata</i> , <i>Acara</i>	423	<i>Gasterosteus</i>	239
<i>cognatus</i> , <i>Cottus</i>	385, 386	<i>concolor</i> , <i>Ammocætes</i>	9
<i>Cogrus</i>	87	<i>Chromitra</i>	257
<i>maculatus</i>	87	<i>Euschistodus</i>	414
<i>Coleoptera</i>	66	<i>Gymnothorax</i>	93
<i>colesi</i> , <i>Scorpena</i>	370	<i>Ichthyomyzon</i>	9
<i>colias</i> , <i>Scomber</i>	258	<i>Lycodes</i>	475
<i>colinus</i> , <i>Gadus</i>	209	<i>Nebrius</i>	94
<i>Coliscus</i>	145	<i>Nexilarius</i>	414
<i>parietalis</i>	145	<i>Scomberomorus</i>	257
<i>collapsum</i> , <i>Moxostoma</i>	110	<i>Thyreoides</i>	92, 93
<i>collapsus</i> , <i>Ptychostomus</i>	110	<i>conductor</i> , <i>Centronotus</i>	278
<i>collaris</i> , <i>Chaetodon</i>	359	<i>conferrum</i> , <i>Oreosoma</i>	232
<i>Colletia</i>	168	<i>confertus</i> , <i>Hyborhynchus</i>	145
<i>nocturna</i>	168	<i>Pimphales</i>	145
<i>rafinesquei</i>	168	<i>confinis</i> , <i>Pimelodus</i>	154
<i>colletti</i> , <i>Careproctus</i>	402	<i>Salmo</i>	59
<i>collei</i> , <i>Chimara</i>	33	<i>confluentus</i> , <i>Fundulus</i>	177
<i>Hydrolagus</i>	33	<i>Salmo</i>	55
<i>Colocephali</i>	90	<i>conformis</i> , <i>Lavinia</i>	120
<i>Cololabis</i>	198	<i>Siboma</i>	120
<i>brevirostris</i>	198	<i>Conger</i>	79
<i>saira</i>	198	<i>anago</i>	80
<i>colombianus</i> , <i>Heterandria</i>	189	<i>analis</i>	80
<i>Colomesus</i>	500	<i>brasilensis</i>	78
<i>psittacus</i>	500	<i>caudicula</i>	79
<i>colonense</i> , <i>Zestidium</i>	347	<i>caudilimitatus</i>	79
<i>colonensis</i> , <i>Stellifer</i>	347	<i>conger</i>	79
<i>colonus</i> , <i>Serranus</i>	320	<i>esculentus</i>	79
<i>colorado</i> , <i>Liza</i>	494	<i>impressus</i>	80
<i>Lutjanus</i>	326	<i>limbatus</i>	78
<i>Lutjanus</i>	326	<i>macrops</i>	79
<i>Perro</i>	425	<i>microstomus</i>	80
<i>coloratum</i> , <i>Aulostoma</i>	245	<i>mordax</i>	88
<i>Colotrigla</i>	406	<i>obtusa</i>	79
<i>stearnsi</i>	406	<i>opisthophthalmus</i>	80
<i>Colpichthys</i>	252	<i>orbignyanus</i>	79
<i>regis</i>	252	<i>rubescens</i>	79
<i>coluber</i> , <i>Gempylus</i>	261	<i>verreauxi</i>	79
<i>colubrinus</i> , <i>Stomias</i>	69	<i>verus</i>	79
<i>Columbia</i>	215	<i>vulgaris</i>	79
<i>transmontana</i>	215	<i>conger</i> , <i>Conger</i>	79
<i>columbianus</i> , <i>Pantosteus</i>	105	<i>Muraena</i>	79
<i>Rutilus</i>	122	<i>conger brasiliensis</i> , <i>Muraena seu</i>	94
<i>Siphateles</i>	122	<i>Congermuraena</i>	79
<i>Vomer</i>	275	<i>caudalis</i>	80
<i>columna</i> , <i>Rhinobatus</i>	23	<i>flava</i>	80
<i>comatus</i> , <i>Exocoetus</i>	201	<i>guppili</i>	80
<i>comes</i> , <i>Roccus</i>	355	<i>congestum</i> , <i>Moxostoma</i>	110
<i>comifer</i> , <i>Achirus</i>	230	<i>congestus</i> , <i>Catostomus</i>	110
<i>commersonianus</i> , <i>Lophius</i>	505	<i>Congrammus</i>	454
<i>commersoni</i> , <i>Ovum</i>	499	<i>moorei</i>	454
<i>commersonii</i> , <i>Arius</i>	149	<i>Congrellus</i>	79
<i>Carcharias</i>	15	<i>gilberti</i>	80
<i>Catostomus</i>	105	<i>Congridæ</i>	79
<i>Cyprinus</i>	105	<i>Congrosoma</i>	80
<i>Fistularia</i>	245	<i>evermanni</i>	80
<i>Squalus</i>	15	<i>Congrus</i>	79
<i>communis</i> , <i>Catostomus</i>	105	<i>curridens</i>	78
<i>Dasybatus</i>	24	<i>coniceps</i> , <i>Muraenesox</i>	79
<i>Pogonichthys</i>	136	<i>conirostris</i> , <i>Pimelodus</i>	156
<i>compar</i> , <i>Cœciophis</i>	87	<i>connectens</i> , <i>Lethops</i>	447
<i>complanata</i> , <i>Moniana</i>	131	<i>Conocara</i>	53
<i>compressa</i> , <i>Anchoviella</i>	50	<i>macdonaldi</i>	53
<i>compressus</i> , <i>Apareiodon</i>	100	<i>macroptera</i>	53
<i>Bassozetes</i>	481	<i>conocephala</i> , <i>Gila</i>	112
<i>Bathynectes</i>	480, 481	<i>conocephalus</i> , <i>Mylopharodon</i>	112
<i>Callyodon</i>	434	<i>Conodon</i>	333
<i>Engraulis</i>	47, 50	<i>antillanus</i>	333
<i>Gadus</i>	212	<i>nobilis</i>	333
<i>Hemigrammus</i>	97	<i>serriker</i>	156
<i>Nauclerus</i>	278	<i>Conorhynchichthys</i>	156
<i>Rutilus</i>	128	<i>Conorhynchus</i>	156
<i>Searus</i>	434	<i>nelsoni</i>	39, 156
		<i>Conorhynchus</i>	

List of scientific names—Continued

	Page		Page
<i>conorhynchus Albula</i>	39, 40	<i>Coregonus spilonotus</i>	65
<i>Gymnelis</i>	477	<i>stanleyi</i>	65
<i>consocium, Chiostoma</i>	251	<i>thymalloides</i>	66
<i>conspersa, Gila</i>	120	<i>thymallus</i>	64
<i>conspersus, Gymnothorax</i>	92	<i>tullibee</i>	61
<i>Serranus</i>	311	<i>bisselli</i>	63
<i>constanciae, Pomatomichthys</i>	296	<i>williamsoni</i>	65
<i>constellatus, Chiropsis</i>	373	<i>cismontanus</i>	65
<i>Platophrys</i>	217	(<i>Coregonus</i>) <i>harengus, Salmo</i>	62
<i>Sebastichthys</i>	367	<i>lucidus, Salmo</i>	62
<i>Sebastomus</i>	367	<i>sapidissimus, Salmo</i>	64
<i>consuetus, Salmo</i>	54	<i>tullibee, Salmo</i>	64
<i>continuum, Hæmulon</i>	329	<i>coregonus, Moxostoma</i>	110
<i>contractus, Chonophorus</i>	442	<i>Ptychostomus</i>	110
<i>conus, Moxostoma</i>	111	<i>coretta, Thunnus</i>	260
<i>Ptychostomus</i>	111	<i>Tynnus</i>	260
<i>convergens, Macrourus</i>	206	<i>coriaceus, Eleutheractis</i>	316
<i>Macrurus</i>	206	<i>Rypiticus</i>	316
<i>convexifrons, Alepocephalus</i>	52	<i>Coridae</i>	426
<i>Pomotis</i>	300	<i>corinus, Hexanchus</i>	11
<i>cookianus, Aphoderus</i>	215	<i>corneta, Fistularia</i>	245
<i>cooperi, Cheonda</i>	118	<i>cornubiensis, Pimelepterus</i>	268
<i>Metanops</i>	218	<i>Rhombus lævis</i>	228
<i>Metaponops</i>	218	<i>cornubicus, Squalus</i>	19
<i>Raja</i>	26	<i>cornutus, Anoplogaster</i>	233
<i>Salmo</i>	55	<i>Chætodon</i>	362
<i>copei, Acipenser (Huso)</i>	35	<i>Chologaster</i>	194
<i>Aleposomus</i>	53	<i>Cyclichthys</i>	502
<i>Chasmistes</i>	108	<i>Cyprinus</i>	128
<i>Cheonda</i>	119	<i>Holacanthus</i>	361
<i>Cottus</i>	386	<i>Hoplostethus</i>	233
<i>Paraliparis</i>	405	<i>Luxilus</i>	123, 128
<i>Lepidosteus</i>	37	<i>Pleuronectes</i>	225
<i>Leuciscus</i>	119	<i>Silurus</i>	245, 246
<i>Squalus</i>	119	<i>Zanclus</i>	362
<i>Xenodermichthys</i>	53	<i>cornutus cerasinus, Hypsilepis</i>	128
<i>Copelandellus</i>	294	<i>chrysocephalus, Luxilis</i>	128
<i>copelandi, Cottogaster</i>	285	<i>cyaneus, Hypsilepis</i>	128
<i>Rheocrypta</i>	285	<i>gibbus, Hypsilepis</i>	128
<i>Copelandia</i>	304	<i>isolepis, Luxilis</i>	128
<i>eriarcha</i>	304	<i>Notropis</i>	128
<i>copii, Leuciscus</i>	123	<i>Coro coro</i>	333
<i>Corallicola</i>	456	<i>coro, Coro</i>	333
<i>altivelis</i>	456	<i>Sciæna</i>	333
<i>marmoratum</i>	456	<i>coroides, Umbrina</i>	350
<i>nigripinne</i>	456	<i>coronata, Seriola</i>	280
<i>coralina, Nareine brasiliensis</i>	27	<i>coronatus, Cyclopterus</i>	397
<i>corallinum, Cryptotrema</i>	456	<i>Petrometopon cruentatus</i>	308
<i>corallinus, Allartedius</i>	377	<i>Serranus</i>	308
<i>Antennarius</i>	506	<i>corporalis, Cyprinus</i>	117
<i>Coralliozetus</i>	464	<i>Leucosomus</i>	117
<i>cardone</i>	464	<i>corpore variegato, Trutta</i>	55
<i>Cordylus</i>	257	<i>cortezianus, Aprodon</i>	474
<i>Coregoni</i>	64	<i>coruscans, Arctozenus</i>	165
<i>Coregonidae</i>	61	<i>Paralepis</i>	165
<i>coregonoides, Paralepis</i>	165	<i>coruscum, Holocentrum</i>	236
<i>Coregonus</i>	64	<i>coruscus, Holocentrus</i>	236
<i>abyssicola</i>	66	<i>Corvina</i>	348
<i>albus</i>	65	<i>acutirostris</i>	346
<i>angusticeps</i>	136	<i>adusta</i>	347
<i>artedi</i>	62, 63	<i>biloba</i>	349
<i>clupeiformis</i>	62, 64, 65	<i>chrysoleuca</i>	346
<i>albus</i>	65	<i>deliciosa</i>	348
<i>clupeiformis</i>	62	<i>denter</i>	344
<i>couesi</i>	65	<i>fulgens</i>	345
<i>coulteri</i>	65	(Homoprius) <i>furthii</i>	347
<i>hoyi</i>	62	(Johnius) <i>jacobi</i>	348
<i>kennicotti</i>	65	<i>macrops</i>	345
<i>labradoricus</i>	64	<i>microps</i>	346
<i>lavaretus</i>	64	<i>ophioscion</i>	347
<i>lauretæ</i>	62	<i>oxyptera</i>	320
<i>nelsonii</i>	65	<i>richardsoni</i>	352
<i>neohantoni</i>	64	<i>ronchus</i>	346
<i>nigripinnis</i>	63	<i>stearnsi</i>	348
<i>novæ-angliæ</i>	65	<i>stellifera</i>	346
<i>oregonus</i>	66	<i>subæqualis</i>	345
<i>osmeriformis</i>	62	<i>trispinosa</i>	346
<i>paralepis</i>	165	<i>vermicularis</i>	348
<i>preblei</i>	65	<i>corvinaeforme, Hæmulon</i>	333
<i>prognathus</i>	63	<i>corvinaeformis, Brachydeuterus</i>	333
<i>pusillus</i>	62	<i>Hæmulon</i>	333
<i>quadrilateralis</i>	65	<i>Corvula</i>	345
<i>richardsonii</i>	64	<i>batabana</i>	345
<i>ruber</i>	163	<i>sanctæ-luciæ</i>	345
<i>signifer</i>	66		

List of scientific names—Continued

	Page		Page
<i>Corvula sialis</i>	345	<i>Cottus bubalis</i>	386
<i>Corynolophus reinhardtii</i>	509	<i>cataphractus</i>	395
<i>Coryphæna argyrurus</i>	264	<i>cephaloïdes</i>	389
aurata.....	265	<i>chaetodon</i>	487
azorica.....	265	<i>chamberlaini</i>	385
cærulea.....	434	<i>claviger</i>	381
dolfin.....	264	<i>cognatus</i>	385, 386
dorado.....	264	<i>copel</i>	386
equisetis.....	265	<i>criniger</i>	390
fasciolata.....	264	<i>decastrensis</i>	387
hippurus.....	264	<i>dicercaus</i>	381
immaculata.....	264	<i>elegans</i>	381
imperialis.....	264	<i>evermanni</i>	383
lessonii.....	265	<i>formosus</i>	386
lineata.....	430	<i>franklini</i>	385
maregravii.....	261	<i>glaber</i>	487
nigrescens.....	317	<i>glacialis</i>	387
novacula.....	430	<i>gobio</i>	383
perciiformis.....	267, 268	<i>gobioides</i>	385
plumieri.....	356	<i>gracilis</i>	383, 385
pompilus.....	267	<i>cayuga</i>	386
psittacus.....	430, 433	<i>greeni</i>	384
rupestris.....	205	<i>groenlandicus</i>	386, 387
scomberoides.....	265	<i>gulosus</i>	383
suerii.....	264	<i>hemilepidotus</i>	380, 381
velifera.....	266	<i>hexacornis</i>	388
virgata.....	265	<i>hispidus</i>	393
vlamingii.....	265	<i>humilis</i>	387
<i>Coryphænidæ</i>	264	<i>ictalops</i>	385
<i>Coryphæniiformes</i>	264	<i>indicus</i>	397
<i>Coryphænoïdes</i>	204	<i>jaok</i>	387
carapinus.....	205	<i>klamathensis</i>	384
filicauda.....	207	<i>leopomus</i>	385
rupestris.....	204, 205	<i>macrops</i>	384
sulcatus.....	207	<i>maculatus</i>	386
<i>Coryphænoïdidae</i>	202	<i>marginatus</i>	384
<i>Coryphopterus</i>	439	<i>marmoratus</i>	387
glaucofrantum.....	439	<i>meridionalis</i>	385
<i>Corythoichthys</i>	243	<i>merlensii</i>	387
albirostris.....	243	<i>mittchilli</i>	386
cayorum.....	243	<i>monopterygius</i>	397
<i>cosmopolita, Micropteryx</i>	276	<i>niger</i>	387
<i>Cossyphus</i>	425	<i>nigricans</i>	386
puellaris.....	425	<i>octodecem-spinosus</i>	386
pulehellus.....	425	<i>onychus</i>	386
costalesi, Smaragdus.....	441	<i>pachypus</i>	386
costaricensis, Gobiesox.....	449	<i>perplexus</i>	384
costatus, Bodianus.....	349	<i>philonips</i>	384
Cottidae.....	383	<i>pistilliger</i>	389
<i>Cottogaster</i>	285	<i>platycephalus</i>	387, 388
aurantiacus.....	241, 285	<i>polaris</i>	388
cheneyi.....	286	<i>porosus</i>	387
copelandi.....	285	<i>polyacanthocephalus</i>	387
putnami.....	285	<i>princeps</i>	384
uranidea.....	285	<i>punctulatus</i>	383
(<i>Cottogaster</i>) <i>uranidea, Etheostoma</i>	285	<i>quadracornis</i>	388
<i>cottoides, Bathygadus</i>	203	<i>rhothea</i>	383
<i>Cottopsis</i>	383	<i>ricei</i>	383, 386
gulosus.....	383	<i>richardsoni</i>	385
parvus.....	383	<i>scorpioides</i>	386
ricei.....	383, 386	<i>scorpius</i>	386
semiscaber.....	384	<i>semiscaber</i>	384
<i>Cottunculus</i>	392	<i>shasta</i>	383
microps.....	392	<i>stelleri</i>	381
thomsonii.....	392	<i>tæniopterus</i>	388
torvus.....	392	<i>tenuis</i>	384
<i>Cottus</i>	383	<i>thomsonii</i>	392
acadian.....	393	<i>trachurus</i>	381
æneus.....	386	<i>tricuspis</i>	389
aleuticus.....	385	<i>tripterygius</i>	393
alvodi.....	385	<i>uncinatus</i>	377
anceps.....	386	<i>ventralis</i>	389
annæ.....	384	<i>verrucosus</i>	387
asper.....	383	<i>villosus</i>	393
asperrima.....	384	<i>viscosus</i>	385
asperrimus.....	384	<i>wilsoni</i>	385
bairdi.....	383	<i>Cotyli nigripinnis</i>	489
bairdii.....	385	<i>Cotylopus</i>	447
beldingii.....	384	<i>acutipinnis</i>	447
bendirei.....	384	<i>coccensis</i>	448
bicornis.....	378	<i>punctatus</i>	448
boleoides.....	385	<i>salvini</i>	418
brodamus.....	395	<i>couaga, Chaetodon</i>	362
		<i>couchi, Dianda</i>	144
		<i>Moniana</i>	131

List of scientific names—Continued

	Page		Page
Couchia	208	crinatus, Alectis	274
minor	208	Blennius	461
couchiana, Limia	193	Zeus	274
couchianus, Platypocilus	193	cristagalli, Anoplarchus	468
couchii, Serranus	308	archolepis, Anoplarchus	468
couesi, Coregonus	65	Cebedichthys	466
Prosopium	65	Centronotus	468
couesii, Apocope	141	cristata, Chimæra	32
Cryptosiras	508	cristatus, Blennius	461
Couesius	136	Pimelodus	158
adustus	137	cristiceps, Melamphaes	233
dissimilis	137	Plectromus	233
greeni	137	cristigalli, Gobius	438
plumbeus	136	cristi-galli, Gobius	438
rubrilateralis	116	Cristivomer	59
Couesius squamulentus	136	namaycush	59
couleri, Coregonus	65	siscowet	60
Prosopium	65	cristulata, Scorpæna	372
courbina, Pogonathus	352	cristulatus, Gymnoclinus	466
Pogonias	352	Crius	268
courtadei, Serranus	310	bertheloti	268
cragini, Amiurus	154	croceus, Leuciscus	140
Etheostoma	291	Rhiniichthys	140
Nivicola	291	crocodilinus, Brachysomophis	89
cramerii, Eosebastes	367	Ophisurus	89
Hybopsis	138	crocodota, Plectropoma	321
Leuresthes	251	crocotus, Hypoplectrus unicolor	321
Oregonichthys	138	croco, Pristipoma	334
Sebastodes	367	Rhoniscus	334
Umbra	174	croicensis, Searus	433, 434
crassa, Belone	196	croker, Sciaen	349
Tigoma	120	Cramileptes	310
crassicauda, Lavinia	120	cromis, Labrus	352
Siboma	120	Pogonias	352
crassiceps, Cryptotomus	431	Crossias	389
Plectromus	233	albomaculatus	389
Scopelus	233	allisi	389
crassilabre, Moxostoma	111	beringi	389
crassilabris, Embryx	474	camtschatkensis	389
Geophagus	424	crossotus, Etropus	219, 220
(Satanoperca)	424	crotalinus, Embryx	473
Lycodopsis	474	Lycodopsis	473
Ptychoctomus	111	Crotalopsis punctifer	88
crassus, Alvodius	283	crotaphus, Julis	426, 427
Esox	173	Crotolops	88
Lepidosteus	36	quintifer	88
craticula, Zygonectes	178	crudelis, Eurymyctera	91
Cratinus	317	cruentatus, Entomacrodus	463
agassizii	317	Labrus	322
Crayracion	498	Petrometopon	308
Creagrutus	98	Priaacanthus	322
notropoides	98	sparus	308
simus	98	cruentatus coronatus, Petrometopon	308
creaseri, Ruscariops	378	cruentifer, Omochelys	86
crebripunctata, Pteroplatea	29	Pisodonophis	86
Cremnobates	456	crumenophthalma, Trachurops	271
affinis	457	crumenophthalmus, Scomber	270, 271
altivelis	456	crureum, Xiphidium	469
fasciatus	456, 457	crureus, Squalus	119
integripinnis	457	crustosum, Peristedion	406
mamoratus	456	Peristedium	406
nox	457	Cryptacanthodes	471
cremnobates, Labrosomus	456	inornatus	471
Starkia	456	maculatus	471
Crenidens simplex	339	Cryptacanthodidae	471
Crenilabrus	425	Cryptops	101
macrostoma	424	Cryptopterenchelys	85
crenulate, Myctophum	170	frontalis	85
crenularis, Tarletonbeania	170	puncticeps	85
Creolus	320	(Cryptopterus) frontalis, Ophichthys	85
creola, Gardinus	180	Cryptopterus	85
Serranus	320	puncticeps	85
Croctroctes	259	puncticeps	85
crenatale, Gobiosoma	446	Cryptosiras	508
crenatale, Gobiosoma	446	couesii	508
Pomacentrus	361	cryptosus, Stromateus	267
crenatis, Salmo	57	Cryptotomus	431
Salmo gairdneri	57	auro-punctatus	431
crestoni, Acanthurus	363	beryllinus	431
Tauti	363	crassiceps	431
cretensis, Labrus	431	dentatus	431
criniger, Cotto	390	retractus	431
crinigerum, Sphidostoma	241	roseus	431
Sphidostoma	241	ustus	431

List of scientific names—Continued

	Page		Page
Cryptotrema	456	Curimata	100
corallinum	456	magdalene	100
crysoleucas, Cyprinus	114, 115	Curimatella	100
Notemigonus	115	lepidurus	100
crysos, Paratractus	272	Curimates, Les.	100
Scomber	272	Curimatidæ	100
Crystallaria	282, 288	Curimatus	100
asprella	288	magdalene	100
Crystallichthys	401	spilurus	100
cyclospilus	401	curta, Anchoviella	48
cyclostigma	401	curtiss-jamesi, Harriotta	33
mirabilis	401	Polistotrema	8
crystallina, Thyrina	248	curtus, Stolephorus	48
crystallinum, Chirostoma	251	Vomer	275
Ctenochaetus	363	curvidens, Congrus	78
striatus	363	curvilineata, Murænophis	91
Ctenodax	269	curvus, Tetodon	497
williamsoni	269	cuspidata, Aluteres	495
Ctenodon	363, 470	cuspidatus, Macrourus	206
ctenodon, Acanthurus	363	Macrurus	206
Ctenogobius	438	cutisanserinus, Carpiodes	103
fasciatus	438	cuvieri, Ausonia	264
tortuge	439	Centropomus	306
Ctenolabrus bergall	424	Gasterosteus	237
uninotatus	424	Gnathypops	453
Ctenolucius	100	Opisthognathus	453
beani	100	Tetragonus	269
insculptus	100	cuzamila, Scarus	434
cubæ, Vomer	275	cyanea, Furcaria	412
cubana, Anchoviella	48	cyanea, Mugilops	252
Anguilla	77	cyanelus, Apomotis	298, 299
Cubanichthys	174	Ichthyobus	102
cubensis	174	Lepomis	298
cubanus, Engraulis	48	Mugilops	252
Epinephelus	311	cyaneus, Hypsilepis cornutus	128
cubensis, Channomuræna	95	Cyanichthys	502
Cubanichthys	174	cæruleus	502
Fundulus	174	cyanocephalus, Iridio	427
Heterandria	188	Labrus	426, 427
Hynnis	274	Lythrurus	126
Limia	191	cyanoguttatus, Herichthys	422
Toxus	188	cyanolene, Sparisoma	432
Vomer septapinnis	275	cyanonoton, Alosa	42
cubera, Lutjanus	325	cyanophrys, Naucrates	278
Cubiceps multiradiatus	268	Psenes	268
cubicus, Ostracion	496	cyanops, Caulolatilus	357
cubifrons, Malthe	507	cyanopterus, Cypselurus	202
cucurri, Prionodon	16	Exocoetus	202
Cucuyo	493	Leucichthys	63
Cugupuguacu	312	Lutjanus	325
cujus, Chasmistes	108	Mesoprion	325
culebræ, Acteis	460	cyanostigma, Julis	426
Malacocentrus	460	Cybiidæ	257
Culius	436	Cybium	257
æquidens	437	acervum	257
amblyopsis	437	caballa	277
fuscus	436	cavalla	257
perniger	437	commersoni	257
(Culius) belizianus, Eleotris	436	immaculatum	257
cultiferum, Pristipoma	334	petus	256
cultrata, Anchoviella	48	sara	256
cultratum, Petalosoma	193	solandri	256
cultratus, Alfaro	193	verany	256
Stolephorus	48	Cycleptus	101
cultrifrons, Aluterus	495	elongatus	101
culveri, Trachinotus	277	nigrescens	101
cumberlandicum, Catonotus flabellare	293	Cyclichthys	501
Etheostoma	293	antillarum	502
cumingii, Ceratichthys	138	attenuatus	502
Oregonichthys	138	briareos	502
cummingsi, Hybopsis	133	cornutus	502
Notropis	133	fuliginosus	502
cuneata, Mollinnesia sphenops	193	schœphi	502
Pocilia	193	spinosus	502
cupido, Geophagus	424	Cyclogaster	399
cupresoides, Pimelodus	153	bristolensis	399
cupreus, Pimelodus	153	megacephalus	400
Silurus	153	(Neoliparis) beringianus	399
Trachinotus	277	mieraspidophorus	399
curacao, Gobius	439	Cyclogasterus	398, 399
Rhinogobius	439	Cyclogobius	444
curassavicus, Balistes	493	cyclolepis, Dolloa	203
curema, Mugil	253	Microgobius	443
Querimana	253	Nematonurus	203
curilus, Salmo	61	Cyclonarce	27

List of scientific names—Continued

	Page		Page
Cyclopium.....	159	Cynoperca.....	282
humboldti.....	159	canadensis.....	282
pirrense.....	160	grisea.....	282
Cyclopomatus, Serranus.....	314	Cynoscion.....	354
Cyclopsetta.....	220	acoupa.....	354
chittendeni.....	221	jamaicensis.....	355
fimbriata.....	220	leiarchus.....	355
querna.....	221	macdonaldi.....	356
Cyclopteroichthys.....	398	microlepidotus.....	355
glaber.....	398	nothus.....	355
Cyclopteridae.....	397	obliquatus.....	355
Cyclopteroides.....	398	othonopterus.....	355
gyrinops.....	398	othonopterus.....	355
Cyclopterus.....	397	parvipinnis.....	356
callyodon.....	399	phoxocephalum.....	356
coeruleus.....	397	regalis.....	355
corenatus.....	397	squampinnis.....	355
gelatinosus.....	402	thalassinus.....	355
lineatus.....	400	xanthulum.....	356
liparis.....	399, 400	cypho, Catostomus.....	108
major.....	401	Esor.....	173
minor.....	400	Cyphosus.....	339
lumpus.....	397	elegans.....	339
minutus.....	397	cyprinaceus, Chaetodon.....	340
musculus.....	400	Cyprinella.....	130, 131
nudus.....	489	analostana.....	129
orbis.....	397	beckwithi.....	130
pavoninus.....	397	billingsiana.....	131
pyramidatus.....	397	bubalina.....	130
spinosus.....	397	calliura.....	129
stelleri.....	398	cercostigma.....	130
ventricosus.....	398	forbesi.....	131
Cycloptus lumpus.....	397	forlonensis.....	131
Cyclopum, Pimeodus.....	159	gunnisonii.....	130
Cyclopum, Liparis.....	400	lepida.....	130
Cyclospilus, Crystallichthys.....	401	ludibunda.....	130
Cyclostigma, Crystallichthys.....	401	lugubris.....	131
Liparis.....	401	luxiloides.....	131
Cyclostoml.....	8	macrostoma.....	131
Cyclothone.....	72	notata.....	130
aeclindens.....	72	rubriplana.....	131
bathypbila.....	72	suavis.....	131
elongata.....	72	texana.....	130
lusca.....	72	umbroea.....	130
microdon.....	72	venusta.....	130
signata.....	72	whippili.....	129
Cyclotis, Ceratichthys.....	137	cyprinella, Chanos.....	40
Cylindraceus, Rivulus.....	179	Megastomatobus.....	102
Cylindricus, Bascanichthys.....	86	Sclerogynathus.....	102, 103
Cylindrosteus.....	37	Cyprinidae.....	112
agassizii.....	37	Cyprinodon.....	180
bartoni.....	37	baileyi.....	182
castelnaudii.....	37	bovinus.....	181
megalops.....	37	rubrofluvialilis.....	181
platostomus.....	37	californiensis.....	181
productus.....	37	carpio.....	180
rafinesquii.....	37	dearborni.....	181
seabriceps.....	37	elegans.....	181
zadockii.....	37	eximius.....	181
(Cylindrosteus) oculatus, Lepisosteus.....	37	felicianus.....	181
Cymatogaster.....	409, 410	gibbosus.....	181
aggregatus.....	409	latifasciatus.....	181
ellipticus.....	410	macularius.....	181
larkinsi.....	410	baileyi.....	182
minimus.....	409	martae.....	181
pulchellus.....	410	mydrus.....	180
rosaceus.....	410	nevadensis.....	181
Cymatogramma, Pileoma.....	286	parvus.....	175
Cymatotænia, Etheostoma (Hadropterus).....	285	riverendi.....	181
Hypohomus.....	285	rubrofluvialilis.....	181
Cynaedus brama.....	338	variegatus.....	180, 181
Cynias.....	13	Cyprinodontes.....	174
canis.....	13	Cyprinodontidae.....	174
lunulatus.....	13	Cyprinoides, Gobius.....	438
Cynichthys.....	310	Lophogobius.....	438
Cynicoglossus.....	228	Cyprinus (Abramis) balteatus.....	117, 118
bathybius.....	228	(Abramis?) smithii.....	141
Cynocephalus.....	17	americanus.....	115, 350
Cynodon, Mesoprius.....	325	atromaculatus.....	117
Cynodonichthys.....	179	atrasatus.....	139, 140
tenuis.....	179, 180	bullaris.....	117
Cynoglossa.....	228	catostomus.....	105, 106
Cynoglossidae.....	230	caurinus.....	118
Cynoglossus, Glyptocéphalus.....	228	commersoni.....	105
Pleuronectes.....	221, 228	cornutus.....	128

List of scientific names—Continued

	Page		Page
<i>Cyprinus corporalis</i>	117	<i>dariensis</i> , <i>Apareiodon</i>	100
<i>crysoleucas</i>	114, 115	<i>Hemibrycon</i>	97
<i>hemiplus</i>	115	<i>Oxyloricaria</i>	162
<i>leuciscus</i>	117	<i>Parodon</i>	100
<i>(Leuciscus) caurinus</i>	118	<i>Sternopygus</i>	101
<i>gracilis</i>	136	<i>Dasibatis</i>	28
<i>oregonensis</i>	113, 114	<i>daspilotus</i> , <i>Pisodonophis</i>	86
<i>maxilingua</i>	146	<i>Dasyatidae</i>	28
<i>megalops</i>	128	<i>Dasyatis</i>	28
<i>melanurus</i>	128	<i>attavilla</i>	29
<i>oblongus</i>	109	<i>guttatus</i>	28
<i>sucetta</i>	109	<i>hastatus</i>	28
<i>teres</i>	105	<i>longus</i>	28
<i>vittatus</i>	140	<i>schmarda</i>	23
<i>cyprinus</i> , <i>Carpiodes</i>	103	<i>torrei</i>	28
<i>Catostomus</i>	102	<i>Dasybatis dipterurus</i>	29
<i>Sclerognathus</i>	102	<i>Dasybatus</i>	28
<i>Cypselurus</i>	201	<i>dasycephalus</i> , <i>Arius</i>	150
<i>bahiensis</i>	202	<i>Galeichthys</i>	150
<i>californicus</i>	202	<i>Dasycottus</i>	392
<i>callopterus</i>	202	<i>setiger</i>	392
<i>cyanopterus</i>	202	<i>daubentonii</i> , <i>Caranx</i>	273
<i>fucorum</i>	202	<i>Davidia</i>	495
<i>furcatus</i>	201	<i>punctata</i>	495
<i>gibbifrons</i>	202	<i>davidsoni</i> , <i>Anisotremus</i>	332
<i>heterurus</i>	201	<i>Monacanthus</i>	494
<i>holubi</i>	202	<i>Pristipoma</i>	332
<i>lineatus</i>	202	<i>davisi</i> , <i>Rabula</i>	91
<i>lutkeni</i>	201	<i>dayi</i> , <i>Phoxargyrea</i>	247
<i>nitigiani</i>	201	<i>deani</i> , <i>Eosebastes</i>	367
<i>spilonotopterus</i>	202	<i>Paraliparis</i>	404
<i>xenopterus</i>	202	<i>Polistotrema</i>	9
<i>cypselurus</i> , <i>Prognurus</i>	403	<i>Sebastes</i>	367
<i>Cypsilurus</i>	201	<i>dearborni</i> , <i>Cyprinodon</i>	181
<i>(Cypsilurus) proceus</i> , <i>Exocoetus</i>	201	<i>Decactylus</i>	205
<i>Cyttus hololepis</i>	232	<i>deandactylus</i> , <i>Beryx</i>	234
		<i>decagonus</i> , <i>Agonus</i>	394
		<i>Leptagonus</i>	394
<i>Dacentrus</i>	412	<i>decagrammus</i> , <i>Hexagrammos</i>	373
<i>luceus</i>	412	<i>Labrax</i>	373
<i>Dactylagnus</i>	455	<i>Decapterus</i>	270
<i>mundus</i>	455	<i>hypodus</i>	270
<i>Dactyleptus</i>	467	<i>macarellus</i>	270
<i>Dactylobatus</i>	27	<i>punctatus</i>	270
<i>armatus</i>	27	<i>sanctæ-helenæ</i>	270
<i>dactyloptera</i> , <i>Scorpena</i>	370	<i>Decapthus</i>	279
<i>Dactylopteridæ</i>	408	<i>decastrensis</i> , <i>Cottus</i>	387
<i>Dactylopterus</i>	408	<i>Decentrus luceus</i>	412
<i>pirapeda</i>	409	<i>deimalis</i> , <i>Serranus</i>	314
<i>volitans</i>	409	<i>declivifrons</i> , <i>Abudefduf</i>	415
<i>dactylopterus</i> , <i>Helicolenus</i>	370	<i>Euschistodus</i>	415
<i>Dactyloscopidæ</i>	454	<i>Salmo</i>	57
<i>Dactyloscopus</i>	454	<i>clarkii</i>	57
<i>cinctus</i>	454	<i>Vomer</i>	275
<i>lunaticus</i>	455	<i>declivis</i> , <i>Seriola</i>	280
<i>pectoralis</i>	454	<i>Decodon</i>	425
<i>poeyi</i>	455	<i>puellaris</i>	425
<i>tridigitatus</i>	454	<i>decoratum</i> , <i>Bryostemma</i>	466
<i>zelotes</i>	455	<i>decoratus</i> , <i>Entomacrodus</i>	463
<i>Dactylostomias</i>	69	<i>Iridio</i>	427
<i>filifer</i>	69, 70	<i>Promicropterus</i>	317
<i>dactylosus</i> , <i>Paraliparis</i>	404	<i>decoris</i> , <i>Doratonotus</i>	429
<i>Dæctor</i>	488	<i>decurrens</i> , <i>Pleuronichthys</i>	225
<i>dækayi</i> , <i>Oxyrhina</i>	19	<i>defensor</i> , <i>Caranx</i>	273
<i>Dajaus</i>	254	<i>Dekaya</i>	357
<i>microps</i>	254	<i>anomala</i>	357
<i>monticola</i>	254	<i>dékayi</i> , <i>Acipenser</i>	34
<i>percoides</i>	254	<i>Gasterosteus</i>	259
<i>dakotensis</i> , <i>Chrosomus</i>	113	<i>Isuropsis</i>	19
<i>dalli</i> , <i>Gobius</i>	442	<i>Phycis</i>	213
<i>Lythrypnus</i>	442	<i>Pimelodus</i>	153
<i>Dallia</i>	172	<i>Scomber</i>	258
<i>pectoralis</i>	172	<i>Syngnathus</i>	212
<i>dallii</i> , <i>Auctospina</i>	369	<i>delalandi</i> , <i>Malacoctenus</i>	459
<i>Pteropodus</i>	369	<i>delalandii</i> , <i>Clinus</i>	459
<i>Dallidae</i>	172	<i>delicatissima</i> , <i>Anchoviella</i>	48
<i>Damalichthys</i>	412	<i>Umbra</i>	172
<i>argyrosomus</i>	412	<i>delicatissimus</i> , <i>Engraulis</i>	48
<i>vacea</i>	412	<i>deliciosa</i> , <i>Corvina</i>	348
<i>damalis</i> , <i>Carpiodes</i>	103	<i>Hybopsis</i>	134
<i>daneæ</i> , <i>Xenophthalmichthys</i>	69	<i>Moniana</i>	134
<i>darienensis</i> , <i>Darienichthys</i>	189	<i>Delolepis</i>	471
<i>Gambusia</i>	189	<i>giganteus</i>	472
<i>Darienichthys</i>	189	<i>virgatus</i>	472
<i>darienensis</i>	189	<i>Delothyris</i>	220

List of scientific names—Continued

	Page		Page
delphinus, Minomus	104	Diaphus	168
Pantosteus	104	theta	168
Deltalaria	25	Diapterus	297, 342
Deltistes	108	aureolus	342
lucatus	108	axillaris	342
dendrica, Ramularia	224	californiensis	341
dendritica, Ancylosetta	224	dowii	341
dendriticum, Siphostoma	242	evermanni	342
dendriticus, Syngnathus	242	gracilis	341
denegatus, Pomacentrus	415	homonymus	341
dennyi, Careliparis	400	lefroyi	341
Liparis	400	olisthostomus	341
dentatus, Apsilus	328	peruvianus	342
Grammatostomias	70	diapterus, Amiichthys	342
Lucifuga	479	Furcimanus	297
Lutjanus	325	Lycodes	476
Paralichthys	224	diaz, Chirostoma	476
Pleuronectes	224	Zoogoneticus	251
Stygicola	470	Dibranchius	182
Tropidinius	328	atlanticus	508
Upeneus	343	dicerca, Ceratocottus	508
dentex, Brycon	98	Cottus	381
Corvina	344	Dicerobatus	31
Engraulis	51	Dicholomycter	499
Menidia	247	Dicrolene	483
Odontoseion	344	filamentosa	483
Osmerus	67	intronigra	483
denticulatus, Girardinus	189	nigra	483
dentiens, Cryptotomus	431	pullata	483
scarus	431	Dicrotus, parvipinnis	261
denudata, Gonostoma	72	diego, Pneumatophorus	258
denudatum, Gonostoma	72	Scomber	258
deppii, Cichlaurus	416	dienerus, Eupomacentrus	413
Heros	416	difformis, Carpiodes	103
depraudus, Esox	173	digitatus, Lycodes	475
depressa, Belone	195	digitatus, Holcomycteromus	482
Fistularia	245	dignabilis, Pseudopleuronectes	227
Rhambdia	158	digrammus, Pleuronectes	226
depressus, Louchiurus	352	digueti, Neomugil	254
Derepodichthys	479	Taniconger	82
Derepodichthys	479	dilecta, Notosema	225
alepidotus	479	dilectum, Notosema	225
Derichthyidae	77	dilectus, Alburnus	125
Derichthys	77	Notropis	125
serpentinus	77	Dilobomycter	499
dermatinus, Lycodapus	478	Dimalacoentrus	430
Salmo	51	dimidiatus, Gasterosteus	237
Dermatocheir	97	Julis	427
Dermatolepis	313	Leucis	122
inermis	313	Serranus	314
punctatus	313	Syngnathus	314
zancus	313	Trisotropis	240
Dermatostethus	240	Dineetus truncatus	35
punctipinnis	240	Dinemus	234
destinarestia, Raja	25	venustus	234
detersor, Julis	429	dinemus, Minnilus	123
detrusus, Gillichthys	444	dinoceros, Citharichthys	219
Deuterodon, atricaudata	96	Diodon	501, 502
dewegeri, Priopodes	319	antennatus	502
Serranus (Paralabrax)	319	asper	501
Diabasis	329	atingi	502
flavolineatus	330	brachiatus	501
obliquatus	330	carinatus	503
parra	329	echinus	501
steindachneri	330	4-maculatus	501
Diabolichthys	32	fuliginosus	502
elliotti	32	geometricus	502
Diacope	324	lineatus	502
viridis	324	holocephalus	501
diadema, Scarus	433	holocanthus	501
Diagramma cavifrons	335	hystrix	501
melanospilum	332	liturosus	501
Dialarchus	391	maculato-striatus	502
synderi	391	maculatus var.	501
Diana	264	maculifer	501
semilunata	264	melanopsis	501
diaphana, Hydrangya	178	meuleni	502
sternoptix	74	mola	503
diaphanes, Raja	25	multimaculatus	501
Raja	25	nigrolineatus	502
Diaphanichthys	79	novem-maculatus	501
diaphanus, Callurus	299	pilosus	501
Zygonectes	178	punctatus	501
Diaphsia	486	reticulatus	502

List of scientific names—Continued

	Page		Page
<i>Diodon rivulatus</i>	502	<i>Dolopichthys</i>	509
<i>schepfi</i>	502	<i>anisacanthus</i>	509
<i>sex-maculatus</i>	501	<i>gracilispinis</i>	509
<i>spinosissimus</i>	501	<i>heteracanthus</i>	510
<i>spinus</i>	502	<i>luetkeni</i>	510
<i>verrucosus</i>	502	<i>microlophus</i>	509
<i>Diodon plumier, le</i>	502	<i>dombey, Gastrobranchus</i>	8
<i>Diodontidae</i>	501	<i>dominicensis, Gambusia</i>	186
<i>diomedea, Aphoristia</i>	231	<i>Limia</i>	191
<i>diomedianus, Hoplunnis</i>	81	<i>Platyæcilus</i>	191
<i>Symphurus</i>	231	<i>Pœcilia</i>	191
<i>Dionda</i>	141	<i>dominus, Protoporus</i>	119
<i>amara</i>	144	<i>Doncella</i>	426
<i>argentina</i>	144	<i>dorado, Coryphæna</i>	264
<i>chrysis</i>	144	<i>Doratonotus</i>	429
<i>couchi</i>	144	<i>bœkei</i>	429
<i>episcopa</i>	144	<i>decorus</i>	429
<i>grisea</i>	144	<i>megalepis</i>	429
<i>melanops</i>	144	<i>thalassinus</i>	429
<i>nubila</i>	144	<i>Dormitor</i>	436
<i>papalis</i>	144	<i>gundlachi</i>	436
<i>plumbea</i>	144	<i>lineatus</i>	436
<i>serena</i>	144	<i>maculatus</i>	436
<i>spadicea</i>	144	<i>microphthalmus</i>	436
<i>texensis</i>	144	<i>dormitator, Platyccephalus</i>	435
<i>Dioplites</i>	298	<i>dormitatrix, Eleotris</i>	435
<i>variabilis</i>	298	<i>dormitor, Gobiomorus</i>	435
<i>Diplanchias</i>	503	<i>Dorosoma</i>	46
<i>nasus</i>	503	<i>cepedianum</i>	46
<i>Diplectrum</i>	318	<i>exile</i>	46
<i>euryplectrum</i>	318	<i>insociabilis</i>	46
<i>formosus</i>	318	<i>notata</i>	46
<i>macropoma</i>	318	<i>Dorosomide</i>	46
<i>pacificum</i>	318	<i>dorsale, Hæmulon</i>	330
<i>radiale</i>	318	<i>dorsalis, Carangoides</i>	274
<i>sciurus</i>	318	<i>Citula</i>	274
<i>diplemia, Semotilus</i>	117	<i>Halatractus</i>	279
<i>Diplesion</i>	286	<i>Hybopsis</i>	134
<i>fasciatus</i>	293	<i>Hypsypops</i>	416
<i>Diplodus</i>	338	<i>Macrurus</i>	207
<i>argenteus</i>	338	<i>Mustelus</i>	13
<i>holbrooki</i>	338	<i>Semotilus</i>	117
<i>sargus</i>	338	<i>Seriola</i>	279
<i>diploproa, Eosebastes</i>	367	<i>Stegastes</i>	416
<i>Sebastichthys</i>	367	<i>Umbrina</i>	350
<i>Diplospondyli</i>	11	<i>Vomer</i>	275
<i>diplotania, Belone</i>	196	<i>dorsatum, Cichlasoma</i>	420
<i>Bodianus</i>	425	<i>dorsatus, Astatheros</i>	420
<i>Harpe</i>	425	<i>Petromyzon marinus</i>	9
<i>Strongylura</i>	196	<i>dorsomaculata, Girella</i>	339
<i>Dipterodon</i>	295	<i>dorso-punicus, Pomacentrus</i>	413
<i>dipterurus, Amphotistius</i>	29	<i>Dorsuarius</i>	339
<i>Dasybatis</i>	29	<i>Doryichthys</i>	243
<i>Dipturus</i>	24	<i>lineatus</i>	243
<i>dipus, Microdesmus</i>	473	<i>Doryrhamphus</i>	243
<i>discobolus, Catostomus</i>	107	<i>californiensis</i>	243
<i>Discocephali</i>	448	<i>sierra</i>	243
<i>Discoepyge</i>	27	<i>dovii, Apogon</i>	295
<i>omnata</i>	27	<i>Gambusia</i>	186
<i>dispar, Scopelengys</i>	170	<i>Gymnothorax</i>	92
<i>Zygonectes</i>	178	<i>Haplocheilichthys</i>	179
<i>dispilus, Iridio</i>	427	<i>Heros</i>	418
<i>Platyglossus</i>	427	<i>Muraena</i>	92
<i>dispilurus, Centropristis</i>	320	<i>Opisthoporus</i>	45
<i>dissimilis, Couesius</i>	137	<i>Oxyzygonectes</i>	179
<i>Erimystax</i>	138	<i>Paraconodon</i>	332
<i>Leucosomus</i>	137	<i>Parapetenia</i>	418
<i>Luxilus</i>	138	<i>Pœcilia</i>	192
<i>distinctum, Sparisoma</i>	432	<i>Pristigaster</i>	45
<i>distinctus, Searus</i>	432	<i>Pristipoma</i>	332
<i>Ditrema atripes</i>	411	<i>dowei, Anableps</i>	194
<i>brevipinne</i>	409	<i>dowi, Leptarius</i>	148
<i>orthonotus</i>	411	<i>Thalassophryne</i>	488
<i>Dixonina</i>	40	<i>dowii, Diapterus</i>	341
<i>nemoptera</i>	40	<i>Exocoetus</i>	201
<i>dodecaëdron, Oocella</i>	394	<i>Selenaspis</i>	148
<i>dodecaëdrus, Agonus</i>	394	<i>Draconetta</i>	450
<i>dofyn, Coryphæna</i>	264	<i>acanthopoma</i>	450
<i>dolichocephalus, Gobius</i>	442	<i>Draconettide</i>	450
<i>dolichogaster, Blennius</i>	468	<i>Drepanopsetta</i>	222
<i>Rhodymenichthys</i>	468	<i>Dropsarus</i>	208
<i>Doliodon</i>	276	<i>drummond-hayi, Epinephelus</i>	312
<i>Dolloa</i>	203	<i>drummondi, Otolithus</i>	355
<i>cyclolepis</i>	203	<i>dubia, Seriola</i>	280
<i>dolomieu, Micropterus</i>	298	<i>dubium, Exoglossum</i>	146

List of scientific names—Continued

	Page		Page
<i>dubius</i> , <i>Ammodytes</i>	451	<i>Echinorhinus</i>	22
<i>Pieraser</i>	456	<i>brucus</i>	22
<i>Menephorus</i>	309	<i>obesus</i>	22
<i>Serranus</i>	309	<i>echinus</i> , <i>Diodon</i>	501
<i>ductor</i> , <i>Gasterosteus</i>	278	<i>Echiodon</i>	486
<i>Naucrates</i>	278	<i>drummondi</i>	486
<i>dugesii</i> , <i>Algansea</i>	116	<i>Echiopsis</i>	88
<i>Ameiurus</i>	153	<i>Echiostoma</i>	70
<i>Haustor</i>	153	<i>barbatum</i>	70
<i>dugesii</i> , <i>Fundulus</i>	182	<i>margarita</i>	70
<i>Zoogoneticus</i>	182	<i>margaritum</i>	70
<i>dulcis</i> , <i>Argyreus</i>	139	<i>ectenes</i> , <i>Careproctus</i>	403
<i>Rhinichthys</i>	139	<i>Micropogon</i>	349
<i>Dules</i>	320	<i>Ectenias</i> , <i>brunneus</i>	265
<i>auriga</i>	320	<i>edentula</i> , <i>Platirostra</i>	36
<i>flaviventris</i>	320	<i>edentulus</i> , <i>Cetengraulis</i>	51
<i>tæniurus</i>	305	<i>Engraulis</i>	51
<i>dumeril</i> , <i>Squatina</i>	22	<i>Edriolychnus</i>	508
<i>dumerili</i> , <i>Apionichthys</i>	230	<i>schmidtii</i>	508
<i>Caranx</i>	279	<i>edwardi</i> , <i>Sciæna</i>	353
<i>Polyceirrhus</i>	351	<i>edwardsii</i> , <i>Psenes</i>	269
<i>Polyciemus</i>	351	<i>Stilbiscus</i>	89
<i>Seriola</i>	279	<i>eeltenkee</i> , <i>Myliobatis</i>	30
<i>duodecim</i> , <i>Engraulis</i>	48	<i>effulgens</i> , <i>Æthiopora</i>	168
<i>duplex</i> , <i>Orthopristis</i>	335	<i>Arlina</i>	287
<i>duquesnii</i> , <i>Catostomus</i>	110	<i>Boleosoma</i>	287
<i>durvillii</i> , <i>Argyropelecus</i>	74	<i>Larimus</i>	344
<i>duryi</i> , <i>Etheostoma</i>	286	<i>eglanteria</i> , <i>Raia</i>	25
<i>dussumieri</i> , <i>Brama</i>	265	<i>Raja</i>	25
<i>Seriola</i>	278	<i>egmontis</i> , <i>Ahlia</i>	82
<i>Dussumieria stolidia</i>	46	<i>Myrophis</i>	82
<i>Dussumieriidae</i>	45	<i>egregia</i> , <i>Cheonida</i>	118
<i>dux</i> , <i>Lachnolaimus</i>	425	<i>Tigoma</i>	118
<i>divinensis</i> , <i>Platessa</i>	227	<i>egregius</i> , <i>Exocoetides</i>	454
		<i>egretta</i> , <i>Bellator</i>	408
<i>earlII</i> , <i>Phycis</i>	212	<i>Prionatus</i>	408
<i>Ebirus</i>	373	<i>eigenmanni</i> , <i>Acutomentum</i>	366
<i>sagamius</i>	373	<i>Cichlasoma</i>	417
<i>Echelidae</i>	82	<i>Evarra</i>	142
<i>Echelus caudilimbatus</i>	79	<i>Gobiesox</i>	490
<i>Echemythes</i>	216	<i>Gobius</i>	439
<i>Echeneidae</i>	448	<i>Rhinogobius</i>	439
<i>Echeneis</i>	448	<i>Rimicola</i>	490
<i>albacauda</i>	448	<i>Sebastodes</i>	366
<i>albescens</i>	449	<i>Theraps</i>	417
<i>apicalis</i>	449	<i>Eigenmannia</i>	101
<i>australis</i>	449	<i>virescens</i>	101
<i>brachyptera</i>	449	<i>eigenmannia</i> , <i>Anchovia</i>	50
<i>fusca</i>	449	<i>Anchoviella</i>	50
<i>guinean</i>	449	<i>eiseni</i> , <i>Characodon</i>	183
<i>holbrooki</i>	449	<i>elaborata</i> , <i>Muraena</i>	93
<i>jacobaea</i>	449	<i>elaboratus</i> , <i>Gymnothorax</i>	93
<i>lineata</i>	449	<i>Elacate</i>	281
<i>lunata</i>	448	<i>atlantica</i>	281
<i>metallica</i>	449	<i>bivittata</i>	281
<i>naucrates</i>	448	<i>falcipinnis</i>	281
<i>neucrates</i>	448	<i>malabarica</i>	281
<i>neucratoides</i>	449	<i>motta</i>	281
<i>nieuhofii</i>	449	<i>pondicerriana</i>	281
<i>osteochir</i>	450	<i>Elacatinus</i>	442
<i>pallida</i>	449	<i>oceanops</i>	442
<i>parva</i>	449	<i>Elagatis</i>	279
<i>postica</i>	449	<i>bipinnulatus</i>	279
<i>quatuordecimlaminatus</i>	449	<i>Elanura</i>	380
<i>remora</i>	449	<i>forcata</i>	380
<i>remoroides</i>	449	<i>Elaphocottus</i>	389
<i>scutata</i>	449	<i>Elaphotoxon</i>	271
<i>sexdecim-lamellata</i>	449	<i>bartholomæi</i>	272
<i>sphæranurum</i>	449	<i>ruber</i>	271
<i>squalipeta</i>	449	<i>Elapsophis</i>	87
<i>tetrapturorum</i>	450	<i>Elasmobranchii</i>	10
<i>tropica</i>	449	<i>elassochir</i> , <i>Noturus</i>	156
<i>verticalis</i>	449	<i>Elassodiscus</i>	402
<i>vittata</i>	449	<i>tremebundus</i>	402
<i>Echidna</i>	94	<i>elassodon</i> , <i>Hippoglossoides</i>	222
<i>catenata</i>	94	<i>Elassoma</i>	305
<i>chionostigma</i>	94	<i>evergladel</i>	305
<i>cocosa</i>	94	<i>zonata</i>	305
<i>flavoscripta</i>	94	<i>zonatum</i>	305
<i>fuscomaculata</i>	94	<i>Elassomidae</i>	305
<i>nebulosa</i>	94	<i>Elastoma</i>	328
<i>nocturna</i>	94	<i>elater</i> , <i>Malthe</i>	507
<i>scabra</i>	94	<i>Zalleutes</i>	507
<i>echinatum</i> , <i>Leiodon</i>	21	<i>Elatonistius</i>	41
<i>echinata</i> , <i>Scorpena</i>	372	<i>Elatarchus</i>	345
<i>Echinorhinidae</i>	22	<i>archidium</i>	345

List of scientific names—Continued

	Page		Page
elattura, Netuma.....	149	elongatus, Luxilus.....	120
elatturus, Arius.....	149	Megalops.....	39
elcapitanense, Syngnathus.....	242	Ophiodon.....	374
elcapitensis, Syngnathus.....	242	Osmerus.....	67
electricus, Rhinobatus.....	23	Pomadasis.....	333
elegans, Cottus.....	381	Pomotis.....	300
Cyphosus.....	339	Sebastes.....	368
Cyprinodon.....	181	Symphurus.....	231
Gasterosteus.....	238	Elopidae.....	39
Gibbonsia.....	458	Elopoidea.....	39
Gila.....	114	Elops.....	39
Hæmulon.....	329	hawaiensis.....	39
Iridio.....	427	inermis.....	39
Kyphosus.....	339	saurus.....	39
Labeo.....	109	elucens, Syngnathus.....	241
Mesoprion.....	328	emarginatum, Searus.....	433
montereyensis, Gibbonsia.....	458	emarginatus, Lobotes.....	325
Myxodes.....	458	Serranus.....	315
Nanostoma.....	289	Embassichthys.....	228
Orthrargiscus.....	503	bathybius.....	228
Pimalepterus.....	339	Embiotoca.....	411
Fleginus.....	209	caryi.....	412
nawaga.....	210	cassidy.....	411
Eleotridæ.....	435	jacksoni.....	411
Eleotris.....	436	lateralis.....	411
abacurus.....	437	lineata.....	411
amblyopsis.....	437	ornata.....	411
capite plagioplateo.....	436	perspicabilis.....	411
(Culius) helizianus.....	436	webbii.....	411
dormitatrix.....	435	Embiotoidea.....	409
grandisquama.....	436	Emblemaria.....	464
guavina.....	436	atlantica.....	464
gyrinus.....	436	marki.....	464
latifrons.....	436	nivipes.....	464
latifasciatus.....	437	oculocirris.....	464
longiceps.....	435	pandionis.....	464
mauriti.....	268	Emblemaridae.....	464
mugiloides.....	436	emblematicus, Gobius.....	443
omocyanus.....	436	Microgobius.....	443
perniger.....	437	Searus.....	435
pictus.....	437	embryum, Allocottus.....	391
pissonis.....	436	Oligocottus.....	391
seminuda.....	438	Embryx.....	473
seminudus.....	438	crassilabris.....	473
sima.....	436	crotalinus.....	473
smaragdus.....	437	parallelus.....	473
somnolentus.....	436	embryx, Gerres.....	342
tubularis.....	437	emiliae, Opsopæodus.....	115
elephas, Squalus.....	20	Emmeekia.....	428
eleuthera, Rabida.....	156	venusta.....	428
Eleutheractis.....	316	emmelane, Arius.....	151
coriaceus.....	316	Averruncus.....	395
eleutherus, Noturus.....	156	Tachysurus.....	151
elizabeth, Lepidosteus.....	37	Emmela.....	364
Elliops.....	151	glaucus.....	354
elliotti, Thorichthys.....	422	emmela, Lepophidium.....	484
elliotti, Diabolichthys.....	32	Leptophidium.....	484
ellipsoidea, Lebias.....	181	emoryi, Gila.....	114
ellipticus, Chatoëssus.....	46	emperador, Astyanax.....	97
Cymatogaster.....	410	Bryconamericus.....	97
Platophrys.....	217	Empetrichthyidae.....	182
Pleuronectes.....	217	Empetrichthys.....	182
Elliops.....	34	merriami.....	182
elongata, Anchovia.....	49	emphæus, Eosobastes.....	367
Anchoviella.....	49	Sebastodes.....	367
Aphoristia ornata var.....	231	Emphyens.....	213
Avocetina.....	83	emphysetus, Bagrus (Sciades).....	148
Bothrocaropsis.....	477	Sciadeichthys.....	148
Clupea.....	41	enæromus, Gobius.....	439
Cyclothone.....	72	Rhinogobius.....	439
Pœcilia.....	190	encaustus, Chapalichthys.....	184
Umbrina.....	351	Characodon.....	184
Umbrula.....	351	encenadæ, Rhinoptera.....	31
elongatum, Gonostoma.....	72	Enchelycephali.....	77
elongatus, Aulophallus.....	190	Enchelycore.....	90
Bramocharax.....	99	euryrhina.....	90
Carpodes.....	104	nigricans.....	90
Catostomus.....	102	nigrocastaneus.....	90
Clinostomus.....	120	Enchelyopus.....	209, 262, 473
Cycleptus.....	102	americanus.....	213
Euclostomus.....	341	barbatus.....	479
californiensis.....	341	cimbrius.....	209
Hispanicus.....	368	mediterraneus.....	208
Labeo.....	109	regalis.....	213
Labichthys.....	83		

List of scientific names—Continued

	Page		Page
enchrysurus, Chromis.....	413	Eosebastes deani.....	367
Helases.....	413	diploproa.....	367
Encrasicholus.....	47	emphaeus.....	367
Encrotes.....	180	introniger.....	366
Engraulidae.....	47	melanostomus.....	366
engraulinus, Photogenis leucops.....	123	saxicola.....	367
Engraulis.....	47	semicinctus.....	367
argyrophanus.....	48	swifti.....	367
brevis.....	51	Eperlanus.....	67
brevirostris.....	51	Ephippidae.....	358
chcerostomus.....	48	ephippium, Chaetodon.....	359
clupeoides.....	50	Plectropoma.....	321
compressus.....	47-50	Ephippus gigas.....	358
cubanus.....	48	zonatus.....	358
delicatissimus.....	48	Epicopus.....	214
dentex.....	51	epicurorum, Chromis.....	280
duodecim.....	48	Epigonichthys.....	469
edentulus.....	51	atropurpureus.....	469
grossidens.....	51	Epigonichthyidae.....	7
janeiro.....	51	Epigonus.....	296
lemniscatus.....	48	macrophthalmus.....	296
louisiana.....	48	occidentalis.....	296
macrolepidotus.....	50	epihexodon, Petromyzon.....	10
mitchilli.....	48	Epinephelus afer.....	312
mordax.....	47	Epinephelidae.....	308
mysticetus.....	51	Epinephelus.....	310
nanus.....	47	adseensionus.....	310
panamensis.....	50	analogus.....	310
per fasciatus.....	47	angustifrons.....	311
poeyi.....	51	brachysoma.....	311
productus.....	50	chalinus.....	315
spinifer.....	50	ciliatus.....	305
tricolor.....	48	cubanus.....	311
engymen, Cetengraulis.....	51	drummond-hayi.....	312
Engyophrys.....	220	flavolimbatus.....	311
sancti-laurentii.....	220	guaza.....	310
Enneacanthus.....	303	guttatus.....	311
gloriosus.....	304	jordani.....	314
margarotus.....	304	labriformis.....	311
obesus.....	304	latefasciatus.....	310
pinniger.....	304	lightfooti.....	313
Enneacentrus.....	309	marginalis.....	310
Enneanectes.....	458	mentzeli.....	310
Enneapterygius.....	458	morio.....	311, 312
carminalis.....	458	mystacinus.....	310
pusillus.....	458	niphobles.....	312
Enneistus.....	309	niveatus.....	311
acanthistius.....	309	ordinatus.....	311
Enophrys.....	381	rosaceus.....	314
claviger.....	381	ruber.....	309, 315
taurinus.....	381	sellicauda.....	311
ensifera, Barchella.....	315	stigma.....	311, 318
Sciama.....	315	Epomula.....	261
ensiferus, Centropomus.....	306	magistralis.....	261
ensis, Gaidropsarus.....	208	episcopa, Dionda.....	144
Motella.....	208	episcopi, Brachyrhaphis.....	187
Sphyræna.....	255	Gambusia.....	187
entemedor, Narcine.....	27	Episeima.....	125
Entomacrodus.....	463	ciliatus.....	132
chiroctetus.....	463	pejuna.....	125
cruentatus.....	463	Epitrichy.....	281
decoratus.....	463	epsetus, Anchoviella.....	48
margaritaceus.....	463	Esox.....	48
nigricans.....	463	Eptatretidae.....	8
entomelas, Acutomentum.....	366	equatorialis, Chlopsis.....	82
Sebasticthys.....	366	Raja.....	26
entomophagus, Leucichthys.....	63	Eques.....	352
Entosphenus.....	9	acuminatus umbrosus.....	353
ciliatus.....	10	americanus.....	352, 353
tridentatus.....	9	balteatus.....	353
Enypomus.....	445	lanceolatus.....	353
seminudus.....	445	lineatus.....	353
Enyptia.....	222	pulcher.....	353
jordani.....	222	punctatus.....	353
eos, Arbacia.....	491	viola.....	353
Boleichthys.....	294	eque tria, Arin.....	149
Chirocentrus.....	113	Balistes.....	491
Gobiesox.....	491	Equetu.....	352
Ophichthys.....	447	equirostrum, Scomberesox.....	197
Pronotoگرامmus.....	322	equisetis, Coryphæna.....	265
Sebastes.....	368	erata, Lobotes.....	323
Sebomus.....	368	erebennus, Ameiurus.....	153
Eosebastes.....	366	erebus, Muræna.....	02, 93
aurora.....	366	eremogens, Salmo.....	58
crateri.....	367		

List of scientific names—Continued

	Page		Page
erethizon, Arothron.....	500	Erythrinus brasiliensis.....	99
Eretmichthys.....	481	macrodon.....	99
ocella.....	481	microcephalus.....	99
pinnatus.....	481	trahira.....	99
eriarcha, Atherinella.....	249	erythrocheilus, Albula.....	40
Copelandia.....	304	erythrogaster, Chrosomus.....	113
Eurystole.....	249	Luxilus.....	113
Ericara.....	53	Serranus.....	312
salmonea.....	53, 54	erythrogaster, Pöcilosoma.....	291
Ericiasta.....	301	erythroptis, Gobiesox.....	490
Ericosma.....	284	Icthelis.....	303
evides.....	284	Sicyases.....	490
Ericeteis.....	400	erythroptera, Pimelodus.....	152
kalishera.....	460	erythrorhynchus, Salmo.....	61
Ericymba.....	141	erythrus, Catostomus.....	110
hucata.....	142	escambia, Zygocetes.....	178
ericymba, Sciaen.....	245	eschrichtii, Oneirodes.....	509
Stellifer.....	346	Escolar.....	260
erionis, Argyrosomus.....	63	niger.....	260, 261
Leucichthys.....	63	violaceus.....	260
Eriopidæ.....	373	esculentus, Carangus.....	273
Eriolepis.....	373	Conger.....	79
zonifer.....	373	Merluccius.....	214
Erimonax.....	138	Eslopsarum.....	250
monacus.....	138	arge.....	250
Erimystax.....	138	Esloscopus.....	455
dissimilis.....	138	zelotes.....	455
watauga.....	138	esmarkii, Lycodes.....	474
Erimyzon.....	108	Esocidæ.....	172
goodii.....	109	esopus, Labeo.....	109
oblongus.....	109	estor, Gila.....	120
succeta.....	109	Esox.....	172, 173
erinacea, Raja.....	25	americanus.....	172
Raja.....	25	australis.....	173
erinaceus, Trichocyclops.....	501	barracuda.....	255
Erimemus.....	137	bozeus.....	173
hyalinus.....	137	brasiliensis.....	199
hypsinotus.....	138	crassus.....	173
labrosus.....	138	cypho.....	173
rubrifrons.....	138	depraudus.....	173
storerianus.....	137	epsetus.....	48
Erisclon.....	355	estor.....	173
albus.....	356	fasciatus.....	173
macedonelli.....	356	flavulus.....	176
nebulosus.....	355	immaculatus.....	173
parvipinnis.....	355	imperialis.....	197
reticulatus.....	355	lineatus.....	173
stolzmanni.....	356	longirostris.....	196
virescens.....	356	lucius americanus.....	173
xanthulus.....	356	lucoides.....	173
erithrus, Caranx.....	273	lugubris.....	173
Eritrenia.....	110	malabaricus.....	99
Erizo.....	501	marinus.....	196
guanabana.....	501	masquinongy.....	172
erochrous, Hololepis.....	294	immaculatus.....	173
Erosala.....	129	ohiensis.....	172
analostana.....	129	niger.....	173
cerulea.....	130	nobilior.....	172
callista.....	130	nobilis.....	172
canura.....	129	ohiensis.....	172
cercostigma.....	130	ornatus.....	173
chlorista.....	129	osseus.....	36
eurystoma.....	130	ovinus.....	181
formosa.....	129	phaleratus.....	173
galactura.....	129	pisculentus.....	176
nivea.....	129	pisciculus.....	176
notata.....	130	porosus.....	173
pyrrhomelas.....	129	raveneli.....	173
stigmatura.....	129	reticulatus.....	173
tevana.....	130	salmoneus.....	163, 172
trichostoma.....	130	saurus.....	197
venusta.....	130	scomberius.....	173
whippli.....	129	spet.....	255
xenura.....	130	sphyraena.....	255
Erotelis.....	437	synodus.....	163
smaragdus.....	437	timneu.....	195
valenciennesi.....	437	tridecemlineatus.....	173
Errex.....	228	tristochus.....	38
zachirus.....	228	umbrosus.....	173
Erychthys.....	433	vermiculatus.....	173
erythraum, Astatheros.....	422	vittatus.....	173
Erythraus.....	420	vulpes.....	39
erythraus, Heros.....	422	zonatus.....	176
Erythrichthys.....	420	estor, Chirostoma.....	250, 251
erythrinoides, Searus.....	432	Esox.....	172

List of scientific names—Continued

	Page		Page
estor, Gila.....	121	Etrumeus.....	46
Estrella.....	287	acuminatus.....	46
atromaculata.....	287	micropus.....	46
esunculus, Atopichthys.....	54	sadina.....	46
Etelides.....	328	Eucalia.....	238
aquilonaris.....	328	inconstans.....	238
Etelis.....	328	cayuga.....	238
carbunculus.....	328	pygmaea.....	238
evirus.....	328	Euchalarolus.....	227
oculatus.....	328	putnami.....	227
Etheostoma.....	286, 293, 294	Eucinostomus.....	340, 341
artesia.....	292	argenteus.....	340, 341
aubeenaubel.....	291	californiensis.....	341
australe.....	293	elongatus.....	341
barrati.....	294	elongatus.....	341
biennioides.....	283, 286	gula.....	341
carulea.....	291	gulula.....	341
callura.....	298	harogulus.....	341
camurum.....	292	meeki.....	341
caprodes.....	282	productus.....	341
cineret.....	290	pseudogula.....	341
(Cottogaster) uranidea.....	285	pseudogula.....	341
cragini.....	292	Eucrotus.....	267
cumberlandicum.....	293	ventralis.....	267
duryi.....	286	Euctenogobius.....	441
flabellaris.....	293	badius.....	441, 442
flabellata.....	293	latus.....	442
fontinalis.....	293	poeyi.....	442
fricksi.....	291	sagittula.....	441
guntheri.....	283	strigatus.....	441
(Helopterus) cymatodonta.....	285	Eucyclogobius.....	444
nigricans.....	285	newberryi.....	444
omachtae.....	284	Endulus.....	320
squamatus.....	285	Endulus.....	14
hildebrandti.....	291	Eugerres.....	342
iowa.....	291	brasiliensis.....	342
juliae.....	292	brevimanus.....	343
lepidocorys.....	292	lineatus.....	342
linsleyi.....	293	mexicanus.....	343
longimana.....	286	plumieri.....	343
luteovittatum.....	291	Eulamia.....	15
macrocephalum.....	284	nicaraguensis.....	16
maculata.....	290	platyrhynchus.....	15
microperca.....	291	eulepidotus, Spheroides.....	498
microperca.....	290	Tetrodon (Spheroides).....	498
nevadensis.....	283	eulepis, Microgobius.....	444
nigricans spilotum.....	285	Euleptorhamphus.....	198
nigra.....	287	brevioris.....	198
(Nathotus) parva.....	290	brevioris.....	198
obovatus.....	292	longirostris.....	198
olivaceus.....	287	velox.....	198
paezi.....	292	Eumesogrammus.....	470
parvipinna.....	292	praecisus.....	470
pellucidum.....	288	Eumicrogobius.....	398
peltatum.....	283	orbis.....	398
phoxocephalum.....	284	phrynoides.....	398
podostemone.....	286	spinosus.....	398
quappella.....	291	eumorphus, Chirocentrus.....	44
rex.....	285	Eumyeteris.....	500
(Rhynchocentrus) bismarckensis.....	287	biternatus.....	500
rupestre.....	290	Eunichthys.....	410
sagitta.....	293	megalops.....	410
severelli.....	293	Eupomacentrus.....	413
squameiceps.....	293	adustus.....	414
swannanoa.....	289	analis.....	413
tessellata.....	290	chrysus.....	414
tippecanoe.....	292	diaceneus.....	413
tuscumbia.....	293	flavilatus.....	414
(Ulocentra) histrio.....	286	flaviventer.....	414
variata.....	289	fuscus.....	413
verecundum.....	287	gillii.....	414
whipplei alabamensis.....	292	leucurus.....	414
wrightii.....	285	leucostictus.....	413
zonale arcansanum.....	289	nepenthe.....	411
ethiops, Albina.....	445	oplophorus.....	411
Etheostomidae.....	282	parvulus.....	411
ethon, Syngnathus.....	241	planifrons.....	411
Etmopterus.....	21	rectifrenum.....	411
bilineatus.....	21	Eupomotis.....	302
etowanus, Catostomus nigricans.....	107	gibbosus.....	299, 302
Etropus.....	219	hieros.....	302
crossotus.....	219, 220	holbrookii.....	302
miros.....	219	holbrookii.....	302
microstomus.....	219	longimanus.....	302
rimosus.....	220	europeus, Trachurus.....	270

List of scientific names—Continued

	Page		Page
europæus, Aspidophorus	395	Evorthodus	438
Blennius	467	breviceps	438
Eurymen	401	Evoxymetopon	262
gyrinus	401	tæniatus	262
Eurymyctera	91	exasperata, Platyrrhina	24
euryopa, Hudsonius	132	exasperatus, Zapteryx	24
euryops, Bathylagus	69	excisus, Doryrhamphus	243
Icelus	378	Excestides	454
Myxostoma	110	egregius	454
Strongylura	196	Exerpes	456
Tylosurus	196	asper	456
euryorus, Apomotis	299	exigua, Anchoviella	47
Lepomis	299	exiguus, Bodianus argyro-leucos et	345
Eurypharyngidæ	95	Stolephorus	47
euryplectrum, Diplectrum	318	exile, Dorosoma cepedianum	46
euryrhina, Enchelycore	90	Siphostoma	243
Eurystole	249	exilicauda, Lavinia	113
eriarcha	249	exilis, Belone	196
eyrstole, Stolephorus	48	Boleichthys	294
eurstoma, Erogala	130	Hippoglossoides	222
Eurystomus	107	Lyopsetta	222
eurystomus, Photogenis	130	Noturus	156
Euscarus	431	Rabida	156
Euschistodus	414	Strongylura	196
analogus	415	Syrietes	243
concolor	414	Eximia	390
declivifrons	414, 415	rubellio	390, 391
Eusebastes	363	eximius, Cyprinodon	181
Euselachii	11	Exocetidae	199
Eusphyra	18	Exocetus	200
Eustomatodus	270	acutus	199
Euthynnus	253	affinis	201
alletteratus	258	albidaetylus	202
lineatus	259	appendiculatus	201
yalto	259	bahiensis	202
Eutycheilithus	352	bicolor	201
evansi, Hybognathus	143	brachycephalus	200
Evarra	142	californicus	202
eigenmanni	142	callopterus	202
tlahuacensis	142	chiliensis	200
Eventognathi	102	comatus	201
Evepigymnus	270	cyanopterus	202
evergladii, Elasmoma	305	(Cypsilurus) procne	201
evermanni, Alvordius	284	dowii	201
Arius	151	evolans	200
Astatheros	420	exsiliens	200
Atherina	216	fasciatus	200
Atherinella	248	fucorum	202
Cheonda	118	furcatus	201
Cichlasoma	420	georgianus	200
Congrosoma	80	gibbifrons	202
Cottus	383	gryllus	200
Diapterus	342	heterurus	201
Hadropterus	284	hillianus	200
Hepsetia	246	holubi	202
Leuciscus	118	lamellifer	200
Moharra	342	lineatus	202
Salmo	59	lutkeni	201
Searus	434	maculipinnis	201
Synodus	164	melanurus	201
Tachysurus	151	mento	200
Thyrina	248	mesogaster	200
Evermannia	445	micropterus	199
longipinnis	445	nigricans	201
panamensis	445	noveboracensis	201
zosterura	445	nuttalli	201
Evermanniichthys	416	obtusirostris	200
metzelaari	447	orbignianus	200
spongicola	416, 447	parre	202
evides, Alvordius	284	quadrirremus	201
Clinus	453	roberti	201
Ericosma	281	rondeletii	201
Plectobranchius	468	rubescens	201
evionthas, Ophichthus	87	rufipinnis	201
Quassiremus	87	seylla	201
Eviota	438	speculiger	201
epiphanes	438	spilonotopterus	202
personata	438	spilopus	201
evirus, Etelis	328	splendens	200
evolans, Exocetus	200	vermiculatus	202
Prionotus	407	vinciguerræ	200
Trigla	407	volador	200
Evolantia	199	volitans	200, 201
microptera	199	volitens	200
Evoplites	324	xenopterus	202

List of scientific names—Continued

	Page		Page
Exoglossum.....	146	fasciatus, Achiurus.....	229
annulatum.....	146	Astyanax.....	97
dubium.....	146	Auchenopterus.....	457
lesurianum.....	146	Baiodon.....	417
maxillingua.....	146	Bodianus.....	325
mirabile.....	142	Bryttus.....	304
nigrescens.....	146	Caranx.....	272
spinicephalum.....	146	Catonotus.....	293
exoletus, Labrus.....	424	Catostomus.....	109
Centrolabrus.....	424	Centronotus.....	467, 468
Exonantes.....	200	Cremnobates.....	456, 457
affinis.....	201	Ctenogobius.....	438
exilis.....	200	Diplecion.....	293
rondeletti.....	200	Esox.....	293
rubescens.....	201	Exocoetus.....	200
rufipinnis.....	201	Genyonemus.....	351
speculiger.....	201	Gymnachirus.....	229
vinciguerra.....	200	Gymnotus.....	101
expansum, Ostracium.....	497	Harpurus.....	362
exiliens, Exocoetus.....	200	Hemirhamphus.....	198
Exonates.....	200	Larimus.....	344
extensus, Fundulus.....	179	Mytilophagus.....	410, 411
Lycodapus.....	478	Ovoides.....	299
Zygonectes.....	179	Pholis.....	468
Extrarius.....	139	Pimiphales.....	145
tetranemus.....	139	Poronias.....	352
exul, Apistes.....	370	Prionodes.....	319
eydouxi, Bagre.....	148	Scomber.....	279
Galeichthys.....	148	Sebastes.....	369
fabbri, Blennius.....	460	Sicyases.....	490
Faber marinus fere quadratus.....	358	Syngnathus.....	242
faber, Chaetodipterus.....	358	Trachurus.....	279
Chaetodon.....	358	Trachynotus.....	276
fabricii, Campylodon.....	75	Xurel.....	272
Centrocyllium.....	21	Zonichthys.....	279
Gadus.....	209	fascicularis, Serranus.....	318, 319
Gunnellus.....	470, 471	fasciola, Idiacanthus.....	70
Liparis.....	400	fasciolaris, Catostomus.....	109
Lumpenus.....	471	Lythrurus.....	126
Spinax.....	21	Notropis umbratilis.....	126
falcat, Aplocheilichthys.....	51	Selachichthys.....	569
fajardo, Auchenopterus.....	457	Symphurus.....	231
falcata, Agosia.....	141	fasciolata, Coryphæna.....	264
Apocope.....	141	favosus, Bathygadus.....	203
Mycteroperca.....	315	Blennius.....	461
phenax, Mycteroperca.....	315	fecundus, Catostomus.....	108
Seriola.....	280	Chasmistes.....	108
falcatus, Brycon.....	98	Felichthys.....	147
Caranx.....	271	amblops.....	159
Gloridichthys.....	188	felicianus, Cyprinodon.....	181
Hemicaranx.....	271	Trifareus.....	181
Labrus.....	276	felinus, Pimelodus.....	153
Serranus.....	315	Serranus.....	315
Sparus.....	425	felis, Anarrhichthys.....	472
Trachinotus.....	276	Galeichthys.....	149
Zonichthys.....	280	Mustelus.....	14
falcidens, Atopichthys.....	54	Pimelodus.....	154
falciformis, Carcharias.....	16	Silurus.....	149
falcipinnis, Carcharias.....	16	fenestralis, Arctedius.....	576
Elania.....	281	Aetolycus.....	376
Facula.....	142	fenestrata, Chromis.....	416
chapale.....	142	fenestratum, Cichlaurus.....	416
Indularia.....	142	ferox, Alepisaurus.....	171
chapale.....	142	Bathypophis.....	70
fallax, Caranx.....	272	Idiacanthus.....	70
Bonot.....	300	Lepisosteus.....	38
fanfarus, Naucrates.....	278	(Atractosteus).....	38
Fario.....	55	Maerodon.....	59
argenteus.....	55	Squalus.....	19
argenteus.....	55	Stomias.....	69
newberryi.....	58	terrestris, Limnata.....	227
stellatus.....	56	Platessa.....	226, 227
trappachi.....	57	terrestris, Characodon.....	183
fata, sedrus.....	56	fata, Pristigaster.....	99
fenestratus, Hippocampus.....	24	feuille, Polyodon.....	36
fasciata, Cichla.....	298	fibulatus, Spinicephalus.....	145
Chapale.....	42	Fierasfer.....	101, 486
Grambia.....	180	acutus.....	486
Melano.....	192	affinis.....	486
Phoxinus.....	231	arenicola.....	486
Pomphosus.....	189	borealis.....	471
Torquatus.....	293	dubius.....	486
Trachia.....	409	berchei, Leiodon.....	478
maculatus, Chamaeleon.....	109	blancheti, Diabolus.....	483
Practipoma.....	305		

List of scientific names—Continued

	Page		Page
filamentosus, <i>Argyriosus</i>	275	flaviventer, <i>Eupomacentrus</i>	414
<i>Breviceps</i>	147	<i>Pomacentrus</i>	414
<i>Hemiramphus</i>	199	flaviventris, <i>Callidulus</i>	320
<i>Icelinus</i>	375, 376	<i>Dules</i>	320
<i>Monacanthus</i>	494	flavoceruleus, <i>Halocentrus</i>	310
<i>Tarandichthys</i>	376	flavolimbatus, <i>Epinephelus</i>	311
filicauda, <i>Coryphæoides</i>	207	flavolineatus, <i>Hæmulon</i>	330
filifer, <i>Dactylostomias</i>	69, 70	flavolineatus, <i>Diabasis</i>	330
filifera, <i>Anchovia</i>	50	<i>Mullus</i>	344
<i>Anchoviella</i>	50	<i>Sargus</i>	333
<i>Chalinura</i>	201	flavo-lineatus, <i>Pimelepterus</i>	339
fimbria, <i>Anoplopoma</i>	373	flavopurpurea, <i>Perca</i>	310
<i>Gadus</i>	373	flavoscripta, <i>Echidna</i>	94
fimbriata, <i>Cyclosetta</i>	220	flavoscriptus, <i>Gymnothorax</i>	91
<i>Loricaria</i>	162	flavovittatus, <i>Upeneus</i>	343
<i>Raia</i>	32	flavulus, <i>Esox</i>	176
<i>Squatina</i>	22	flavus, <i>Turdus</i>	425
fimbriatus, <i>Blennius</i>	473	<i>Noturus</i>	155
<i>Hemirhombus</i>	220	fleurieu, <i>Ostorhinchus</i>	295
<i>Icelinus</i>	376	flexuolaris, <i>Lepomis</i>	298
<i>Paraliparis</i>	404	flexuosus, <i>Catostomus</i>	105
<i>Serranus</i>	311	flora, <i>Neoliparis</i>	399
Fimbriatorpedo.....	27	floralis, <i>PlatyGLOSSUS</i>	426
firmsquamis, <i>Bogostolius</i>	204	florida, <i>Branchiostoma</i>	7
<i>Macurus</i>	204	<i>Jordanella</i>	180
fischeri, <i>Chaetostoma</i>	161	<i>Siphostoma</i>	241
<i>Chaetostomus</i>	161	<i>Syngnathus</i>	241
<i>Solea</i>	230	floridana, <i>Cichla</i>	297
<i>Tetragonopterus</i>	97	<i>Huro</i>	297
Fissala.....	408	floridanus, <i>Phycis</i>	213
<i>alata</i>	408	<i>Urophycis</i>	213
fissuratus, <i>Neoliparis</i>	399	floridensis, <i>Calliurus</i>	303
Fistularia.....	245	<i>Fundulus</i>	176
<i>commersonii</i>	245	Floridichthys.....	180
<i>corneta</i>	245	<i>carpio</i>	180
<i>depressa</i>	245	floripinnis, <i>Haplochilus</i>	177
<i>immaculata</i>	245	fluviatilis, <i>gibbosa</i> , <i>Perca</i>	302
<i>neo-boracensis</i>	245	<i>Hudsonius</i>	132
<i>petimba</i>	245	<i>Leptophilypnus</i>	436
<i>serrata</i>	245	<i>Sargosomus</i>	412
<i>tabacaria</i>	245	<i>Tetradon</i>	499
<i>villosa</i>	245	Fodiator.....	199
Fistulariidae.....	245	<i>acutus</i>	199
<i>fistularis</i> , <i>Flagellaria</i>	245	fodiator, <i>Tylosurus</i>	196
<i>fistulata</i> , <i>Syngnathus</i>	241	foetens, <i>Salmo</i>	163
<i>fistulatus</i> , <i>Syngnathus</i>	241	<i>Synodus</i>	163, 172
<i>flabellare cumberlandicum</i> , <i>Catonotus</i>	293	<i>folium</i> , <i>Polyodon</i>	36
<i>lineolatum</i> , <i>Catonotus</i>	293	fonsecensis, <i>Achirus</i>	230
<i>flabellaris</i> , <i>Catonotus</i>	293, 383, 385	<i>Solea</i>	230
<i>Etheostoma</i>	293	Fonticola.....	178
<i>flabellata</i> , <i>Etheostoma</i>	293	fonticola, <i>Alvarius</i>	295
<i>flabellicauda</i> , <i>Rivulus</i>	180	<i>Fundulus</i>	175
<i>Flagellaria</i>	245	<i>Fundulus heteroclitus</i>	175
<i>fistularis</i>	245	fontinalis, <i>Etheostoma</i>	293
<i>flagellum</i> , <i>Goniobatis</i>	30	<i>Salmo</i>	60
<i>Raia</i>	30	<i>Salvelinus</i>	60
<i>Sacopharynx</i>	95	forbesi, <i>Cyprinella</i>	131
Flammico.....	236	Forbesella.....	194
<i>mediatus</i>	236	<i>agassizii</i>	194
flammeus, <i>Phoxinus</i>	121	<i>papillifera</i>	194
flava, <i>Congermuræna</i>	80	forcipatus, <i>Balistes</i>	492
<i>Hildebrandia</i>	80	Forcipiger.....	359
<i>Loricaria</i>	160	<i>flavissimus</i>	359
flavescens, <i>Mesoprion</i>	325	<i>longirostris</i>	359
<i>Morone</i>	281	forficata, <i>Flanura</i>	380
<i>Perca</i>	281	forlonensis, <i>Cyprinella</i>	131
<i>Prionodes</i>	319	<i>Nototropis</i>	131
<i>Searus</i>	433	formosa, <i>Algansea</i>	122
<i>Serranus</i>	319	<i>Erogala</i>	129
<i>sparisoma</i>	433	<i>Guentheridia</i>	500
flavescens, <i>Bromens</i>	213, 214	<i>Heterandria</i>	188
flavicauda, <i>Hyporthodus</i>	311	<i>Limia</i>	192
flavidus, <i>Apodichthys</i>	466, 467	<i>Mollienesia</i>	192
<i>Aulorhynchus</i>	240	<i>Moniana</i>	129, 131
<i>Sebaste</i>	364	<i>Perca</i>	318
<i>Sebastosomus</i>	364	formosulum, <i>Campostoma</i>	147
flaviguttatum, <i>Lythrulon</i>	331	formosum, <i>Hæmulon</i>	330
flaviguttatus, <i>Hæmulon</i>	331	formosus, <i>Alburnus</i>	129
flavilatus, <i>Eupomacentrus</i>	414	<i>Anthias</i>	330
<i>Pomacentrus</i>	414	<i>Callirurus</i>	299
flavipinnis, <i>Hybognathus</i>	144	<i>Cottus</i>	386
<i>Pristigaster</i>	44	<i>Diplectrum</i>	318
flavirostris, <i>Syngnathus</i>	241	<i>Holacanthus</i>	361
flavissimus, <i>Forcipiger</i>	359	<i>Siphoteles</i>	122
		<i>Tetradon</i>	500

List of scientific names—Continued

	Page		Page
<i>formulosum</i> , <i>Campostoma</i>	147	<i>Fundulus bermude</i>	175
<i>forskäli</i> , <i>Albula</i>	39	<i>chrysotus</i>	177
<i>Glossodus</i>	40	<i>cingulatus</i>	177
<i>forsteri</i> , <i>Albula</i>	40	<i>confluentus</i>	177
<i>Scomberesox</i>	197	<i>cubensis</i>	174
<i>forsterianus</i> , <i>Catostomus</i>	105, 106	<i>dugesii</i>	182
<i>fossor</i> , <i>Ichthyomyzon</i>	9	<i>extensus</i>	179
<i>fosteri</i> , <i>Priapichthys</i>	189	<i>floridensis</i>	176
<i>4-maculatus</i> , <i>Diodon</i>	501	<i>fonticola</i>	175
<i>fragilis</i> , <i>Citharichthys</i>	218	<i>fusus</i>	174
<i>Macrourus</i>	206	<i>grandis</i>	176
<i>Macrurus</i>	206	<i>guatemalensis</i>	174
<i>francisci</i> , <i>Cestracion</i>	10	<i>heterochilus</i>	175
<i>Gyroleurodus</i>	10	<i>baduus</i>	176
<i>franklini</i> , <i>Cottus</i>	385	<i>bermude</i>	175
<i>Pleuronectes</i>	227	<i>fonticola</i>	175
<i>fraterculus</i> , <i>Mylocheilus</i>	112	<i>grandis</i>	176
<i>fremebundum</i> , <i>Hæmulon</i>	329	<i>macrolepidotus</i>	176
<i>fremivillii</i> , <i>Aëtobatus</i>	31	<i>kansu</i>	179
<i>Myliobatis</i>	31	<i>labialis</i>	174
<i>frenata</i> , <i>Loricaria</i>	162	<i>limi</i>	178
<i>frenatus</i> , <i>Brachyistius</i>	409	<i>majalis</i>	175, 176
<i>Iridio</i>	427	<i>maeki</i>	178
<i>Odontopyxis</i>	395	<i>maroni</i>	178
<i>Sarritor</i>	395	<i>mundulus</i>	175
<i>Xantocles</i>	375	<i>nisotus</i>	175
<i>Zanlepis</i>	375	<i>ocellatus</i>	174
<i>fretensis</i> , <i>Hybopsis</i>	129	<i>ocellatus</i>	176
<i>fricksia</i> , <i>Etheostoma</i>	291	<i>pachycephalus</i>	174
<i>Oligocephalus</i>	291	<i>paltilus</i>	176
<i>friedrichstahli</i> , <i>Heron</i>	418	<i>parvipinnis</i>	176
<i>Parapetenia</i>	418	<i>brevis</i>	176
<i>frigida</i> , <i>Moniana</i>	131	<i>punctatus</i>	174
<i>frigidus</i> , <i>Lycoches</i>	174	<i>rathbuni</i>	175, 179
<i>fröbeli</i> , <i>Amphilophus</i>	422	<i>rhizophore</i>	177
<i>frondosum</i> , <i>Spartostoma</i>	433	<i>ocellatus</i>	177
<i>frondosus</i> , <i>Searus</i>	433	<i>sciadicus</i>	177
<i>frontale</i> , <i>Cichlasoma</i>	417	<i>seminolis</i>	177
<i>frontalis</i> , <i>Caranx</i>	273	<i>similis</i>	178
<i>Cryptopterenchelys</i>	85	<i>tenellus</i>	177
<i>Gastropodichthys</i>	225	<i>vinctus</i>	176
<i>Leuciscus</i>	128	<i>van leeuweni</i>	176
<i>Ophichthys</i> (<i>Cryptopterus</i>).....	85	<i>xenichthys</i>	180
<i>Prionotus</i>	408	<i>zebra</i>	176
<i>Theraps</i>	417	<i>zebrinus</i>	179
<i>fronti unicorni</i> , <i>Lophius</i>	507	<i>zonatus</i>	178
<i>fronto</i> , <i>Carcharias</i>	17	<i>fundulus</i> , <i>Alepocephalus</i>	52
<i>Nemichthys</i>	83	<i>funeris</i> , <i>Gobiesox</i>	489
<i>frost</i> , <i>Gadus</i>	210	<i>Gymnothorax</i>	92
<i>fucensis</i> , <i>Liparis</i>	400	<i>Noturus</i>	156
<i>Pollachius chalcogrammus</i>	209	<i>Rabida</i>	156
<i>Theragra</i>	209	<i>Furcaria</i>	412
<i>fusca</i> , <i>Aplocheilichthys</i>	467	<i>atrilobata</i>	412
<i>Blennius</i>	461	<i>bermude</i>	413
<i>Cypselurus</i>	202	<i>cyanea</i>	412
<i>Exocoetus</i>	202	<i>multilineata</i>	412
<i>Xerorpes</i>	467	<i>puncta</i>	412
<i>fulgens</i> , <i>Corvina</i>	345	(<i>Furcaria</i>) <i>atrilobata</i> , <i>Chromis</i>	412
<i>Myriopristis</i>	234	<i>furcatus</i> , <i>Cypselurus</i>	201
<i>Priacanthus</i>	323	<i>Ictalurus</i>	151, 152
<i>Tetraodon</i>	96	<i>Exocoetus</i>	201
<i>fulgida</i> , <i>Meda</i>	147	<i>Phanerocheilichthys</i>	411
<i>fuliginosus</i> , <i>Balistes</i>	491	<i>Pinicola</i>	152
<i>Cyclichthys</i>	502	<i>Furcella</i>	476
<i>Diodon</i>	502	<i>furcellus</i> , <i>Careproctus</i>	402
<i>Synbranchius</i>	76	<i>furcidens</i> , <i>Characodon</i>	183
<i>fuliginotus</i> , <i>Holoconotus</i>	411	<i>furcifer</i> , <i>Paranthias</i>	320
<i>fulva</i> , <i>Labrus chogset</i>	424	<i>Pimelodus</i>	152
<i>fulvescens</i> , <i>Acipenser</i>	33, 35	<i>Serranus</i>	320
<i>fulvo-maculatus</i> , <i>Labrus</i>	335	<i>furiger</i> , <i>Ichthys</i>	378
<i>fulvum</i> , <i>Ginglymostoma</i>	12	<i>furiosus</i> , <i>Noturus</i>	476
<i>fulvus</i> , <i>Cephalopholis</i>	509	<i>drapetis</i>	476
<i>Labrus</i>	509	<i>furciferinus</i> , <i>Pontinus</i>	372
<i>Physiculus</i>	212	<i>furiosa</i> , <i>Pachypogon</i>	349
<i>punctatus</i> , <i>Cephalopholis</i>	509	<i>Percus</i>	349
<i>ruber</i> , <i>Cephalopholis</i>	509	<i>furiosa</i> , <i>Rabida</i>	156
<i>fumeus</i> , <i>Notropis</i>	125	<i>furiosa</i> , <i>Noturus</i>	156
<i>funduloides</i> , <i>Clinostomus</i>	121	<i>funneri</i> , <i>Micropteron</i>	349
<i>Zygocentrus</i>	176	<i>Umbrina</i>	349
<i>Fundulus</i>	175, 180	<i>furthi</i> , <i>Arius</i>	151
<i>admiratus</i>	179	<i>Cheilichthys</i>	499
<i>albidus</i>	177	<i>furthii</i> , <i>Arius</i>	151
<i>antillanus</i>	175	<i>Caranx</i>	271
<i>arctus</i>	177	<i>Corvina</i> (<i>Homoniprion</i>).....	317
<i>balteus</i>	179		

List of scientific names—Continued

	Page		Page
<i>furthii</i> , Hemicarax.....	271	<i>Gadus punctatus</i>	213
<i>Pristipoma</i>	332	<i>purpureus</i>	209
<i>Tetrodon</i>	499	<i>pygmaeus</i>	210
<i>Zostis</i>	347	<i>ruber</i>	214
<i>furva</i> , Perca.....	317	<i>rupestris</i>	210
<i>fusca</i> , Echenis.....	449	<i>saida</i>	209
<i>Hydrargyra</i>	174	<i>tau</i>	486, 487
<i>Sciæna</i>	352	<i>tenuis</i>	213
<i>Tautoga</i>	424	<i>toncod</i>	210
<i>fuscescens</i> , Icelinus.....	376	<i>tomcodus fuscus</i>	210
<i>fuscomaculata</i> , Echidna.....	94	<i>tomcodus luteus</i>	210
<i>fusco-maculatus</i> , Chromis.....	419	<i>mixtus</i>	210
<i>fuscus</i> , Centropristes.....	319	<i>pruinosus</i>	210
<i>Prionodes</i>	319	<i>torsk</i>	214
<i>fuscum</i> , Pygidium.....	159	<i>vertagus</i>	210
<i>fuscus</i> , Acronurus.....	362	<i>virens</i>	209
<i>Bathygobius</i>	440	<i>wachna</i>	210
<i>Bythites</i>	480	<i>Gaidropsaridæ</i>	208
<i>Culius</i>	436	<i>Gaidropsarus</i>	208
<i>Eupomacentrus</i>	413	<i>ensis</i>	208
<i>Fundulus</i>	174	<i>mustellurus</i>	208
<i>Gadus tomcodus</i>	210	<i>septentrionalis</i>	208
<i>Gobius</i>	440	<i>gaimardiana</i> , Querimana.....	254
<i>Hemirhombus</i>	219	<i>gaimardianus</i> , Mugil.....	254
<i>Kyphosus</i>	339	<i>gaidneri</i> beardslei, Salmo.....	57
<i>Pomacentrus</i>	413	<i>crenatus</i> , Salmo.....	57
<i>Psenes</i>	268	<i>gilberti</i> , Salmo.....	58
<i>Serranus</i>	315	<i>shasta</i> , Salmo.....	58
<i>Silurus</i>	153	<i>stonei</i> , Salmo.....	58
<i>Syngnathus</i>	242	<i>gaidnerii</i> , Salmo.....	58
<i>Syrristes</i>	276	<i>galactura</i> , Erogala.....	129
<i>Trachinotus</i>	339	<i>galacturus</i> , Hypsilepis.....	129
<i>Xyster</i>	294	<i>Galafate</i>	493
<i>fusiiforme</i> , Boleosoma.....	294	<i>Galasaccus</i>	175
<i>fusiiformis</i> , Boleichthys.....	294	<i>Galasaccus</i>	177
<i>fyllæ</i> , Raja.....	25	<i>galeata</i> , Belone.....	197
<i>gabonensis</i> , Vomer.....	275	<i>galeatus</i> , Gymnacanthus.....	389
<i>gabunensis</i> , Ischnomembras.....	247	<i>Gymnacanthus</i>	389
<i>Gadella</i>	211	<i>Silurus</i>	159
<i>gracilis</i>	211	<i>Tylosurus</i>	197
<i>maraldi</i>	211	<i>Galei</i>	11
<i>Gadidae</i>	209	<i>Galeichthys</i>	149
<i>Gadomus</i>	202	<i>assimilis</i>	150
<i>arcuatus</i>	202	<i>azureus</i>	150
<i>longifilis</i>	202	<i>bahiensis</i>	148
<i>gadolvi</i> , Cichlosoma.....	417	<i>caruleus</i>	150
<i>Theraps</i>	417	<i>dasycephalus</i>	150
<i>Gadus</i>	210	<i>eydouxii</i>	148
<i>æglifinus</i>	210, 211	<i>feliceps</i>	149
<i>acilis</i>	209	<i>felis</i>	148, 149
<i>albidus</i>	214	<i>gilberti</i>	150
<i>arenosus</i>	210	<i>guatemalensis</i>	150
<i>auratus</i>	210	<i>guentheri</i>	149
<i>brosme</i>	213	<i>jordani</i>	150
<i>callarias</i>	210	<i>letiginosus</i>	149
<i>carbonarius</i>	209	<i>longicephalus</i>	150
<i>chaleogrammus</i>	209	<i>peruvianus</i>	149
<i>cimbrius</i>	209	<i>seemani</i>	150
<i>colinus</i>	209	<i>surinamensis</i>	150
<i>compressus</i>	212	<i>xenauchen</i>	150
<i>fabricii</i>	209	<i>Galeocercus</i>	14
<i>fimbrius</i>	373	<i>arcticus</i>	14
<i>frost</i>	210	<i>tigrinus</i>	14
<i>gracilis</i>	210, 211	<i>galeoides</i> , Otophidiium.....	485
<i>heteroglossus</i>	210	<i>Galeorhinus</i>	14
<i>lacustris</i>	152, 212	<i>zyopterus</i>	14
<i>lepidion</i>	211	<i>galerita</i> , Blennius.....	460
<i>longipes</i>	213	<i>Galeus</i>	13, 17
<i>lota</i>	212	<i>asterias</i>	13
<i>macrocephalus</i>	210	<i>catulus</i>	13
<i>maculosus</i>	212	<i>glaucus</i>	17
<i>maraldi</i>	211	<i>maculatus</i>	14
<i>merluccius</i>	214	<i>melanostomus</i>	12
<i>merlus</i>	214	<i>mustelus</i>	13
<i>molva</i>	212	<i>vulpecula</i>	13
<i>morrhua</i>	210	<i>galeus</i> , Serranus.....	312
<i>musiela</i>	208	<i>Squalus</i>	13, 14
<i>nans</i>	210	<i>Gallichthys</i>	274
<i>nawaga</i>	209, 210	<i>gallichthys</i> , Carangoides.....	274
<i>ogac</i>	210	<i>gallinula</i> , Monacanthus.....	494
<i>periscopus</i>	209	<i>Gallus</i>	274
<i>pollachius</i>	209	<i>gallus</i> , Zeus.....	274, 275
<i>polymorphus</i>	210	<i>galtia</i> , Squalius.....	118
<i>proximus</i>	210		

List of scientific names—Continued

	Page		Page
<i>Gambusia</i>	184, 185	<i>Gasterosteus aculeis</i>	239
<i>annectans</i>	187	<i>apeltes</i>	239
<i>arlingtonia</i>	177	<i>argentissimus</i>	238
<i>bonita</i>	188	<i>atkinsi</i>	238
<i>cana</i>	188	<i>bailloui</i>	237
<i>cascajalensis</i>	187	<i>biaculeatus</i>	237
<i>caymanensis</i>	186	<i>bispinosus</i>	238
<i>darienensis</i>	189	<i>blanchardi</i>	239
<i>dominicensis</i>	186	<i>breviceps</i>	239
<i>dovii</i>	186	<i>canadus</i>	281
<i>episcopi</i>	187	<i>carolinus</i>	276, 277
<i>fasciata</i>	189	<i>cataphractus</i>	237
<i>gracilior</i>	186	<i>concinus</i>	239
<i>gracilis</i>	185	<i>cuvieri</i>	237
<i>heckeh</i>	185	<i>dekayi</i>	239
<i>holbrooki</i>	184	<i>dimidiatus</i>	237
<i>holbrooki</i>	185	<i>ductor</i>	278
<i>humilis</i>	185	<i>elegans</i>	238
<i>infans</i>	189	<i>gladiunculus</i>	238
<i>latipunctata</i>	187	<i>globiceps</i>	238
<i>maui</i>	186	<i>gymnurus</i>	237
<i>mench</i>	186	<i>inconstans</i>	238
<i>melaphora</i>	185	<i>inopinatus</i>	238
<i>modesta</i>	185, 192	<i>insculptus</i>	237
<i>myersi</i>	185	<i>islandicus</i>	238
<i>nicaraguae</i>	181, 186	<i>laevis</i>	239
<i>noebis</i>	185	<i>leiurus</i>	237
<i>oligocetata</i>	186	<i>loricatus</i>	237
<i>paucius</i>	186	<i>lotharingus</i>	239
<i>peruana</i>	187	<i>matensis</i>	239
<i>petricola</i>	185	<i>marinus</i>	239
<i>posticata</i>	185	<i>microcephalus</i>	237
<i>plurata</i>	192	<i>micropus</i>	238
<i>punctata</i>	181, 185	<i>millipunctatus</i>	239
<i>punctulata</i>	185	<i>reticulosus</i>	239
<i>punctulata</i>	186	<i>reticulosus</i>	238
<i>regani</i>	181, 186	<i>noveboracensis</i>	237
<i>rhabdophora</i>	186	<i>obolarius</i>	237
<i>senilis</i>	185	<i>occidentalis</i>	238, 239
<i>speciosa</i>	185	<i>plebeius</i>	237
<i>terralana</i>	186	<i>porticus</i>	237
<i>tridentiger</i>	188	<i>pugeti</i>	238
<i>turrubarensis</i>	189	<i>pungitius</i>	238, 239
<i>umbrellalis</i>	190	<i>brachypoda</i>	239
<i>vittata</i>	186	<i>pygmaeus</i>	238
<i>wrayi</i>	186	<i>quadraus</i>	239
<i>yucatan</i>	186	<i>saltatrix</i>	280
<i>Gambusia</i>	175, 179	<i>santa-anna</i>	238
<i>Gammarus</i>	25	<i>semimartius</i>	237
<i>gardeniana</i> , <i>Hiatula</i>	424	<i>semiloricatus</i>	237
<i>gardenii</i> , <i>Centronotus</i>	481	<i>serratus</i>	237
<i>Sternopyx</i>	266	<i>spinachia</i>	239
<i>gardoneus</i> , <i>Leuciscus</i>	115	<i>spinulosus</i>	237
<i>Notemigonus</i>	115	<i>teraculeatus</i>	237
<i>garmani</i> , <i>Cetengraulis</i>	51	<i>trachurus</i>	237
<i>Characodon</i>	183	<i>wheatlandi</i>	238
<i>Girardinus</i>	189	<i>williamsoni</i>	238
<i>Gobius</i>	439	<i>microcephalus</i>	237
<i>Lepomis</i>	300	<i>Gastron</i>	239
<i>Notropis</i>	131	<i>Gastrobranchus</i>	8
<i>Paraliparis</i>	405	<i>cucius</i>	8
<i>Rhinogobius</i>	439	<i>dombey</i>	8
<i>Stolephorus</i>	51	<i>Gastropsetta</i>	225
<i>Garmannia</i>	445	<i>frontalis</i>	225
<i>hemigynna</i>	445	<i>Gastropsetta</i>	95
<i>peruviana</i>	445	<i>bairdii</i>	95
<i>rubra</i>	445	<i>pacificus</i>	95
<i>spongicola</i>	446	<i>Gastropsetta</i>	312
<i>garnoti</i> , <i>Indica</i>	427	<i>gastropsetta</i>	310
<i>fulva</i>	427	<i>labrus</i>	310
<i>Garrupa</i>	312	<i>gavialis</i> , <i>Lepisosteus</i>	36
<i>nigrita</i>	312	<i>gavialis</i> , <i>Modiolus</i>	214
<i>Gasteropellicia</i>	99	<i>geddesi</i> , <i>Characodon</i>	182
<i>cataphractus</i>	237	<i>Herichthys</i>	423
<i>Gasteropellicia</i>	99	<i>Tomocichla</i>	423
<i>Gasteropelcus</i>	99	<i>gelatinosus</i> , <i>Melanostigma</i>	478
<i>humboldtii</i>	169	<i>gelatinosus</i> , <i>Aphyonius</i>	484
<i>maculatus</i>	99	<i>Careproctus</i>	402
<i>sternicus</i>	99	<i>Cyclopterus</i>	102
<i>Gasteropelcus</i> , <i>Trachinus</i>	267	<i>Gelata</i> , <i>Amniocrypta</i>	289
<i>Gasteropelcus</i>	268	<i>Maerhybopsis</i>	139
<i>Gasterosteus</i>	237	<i>gelidus</i> , <i>Gobio</i>	138, 139
<i>Gasterosteus</i>	238	<i>geminatus</i> , <i>Blennius</i>	461, 462
<i>Gasterosteus</i>	237	<i>Hypomelichia</i>	462
<i>aculeatus</i>	237		

List of scientific names—Continued

	Page		Page
gemma, Hypoplectrus.....	321	Gibbonsia metzi.....	458
Hypoplectrus unicolor.....	321	gibbosa cinerea, Perca marina.....	329
gemmifer, Astronesthes.....	71	Gila.....	119
Lampnocyttus.....	167	Moniana.....	131
Leucichthys.....	63	Perca.....	302, 329
Gempylidae.....	260	fluviatilis.....	302
Gempylus.....	261	Tigoma.....	119
coluber.....	261	gibbosus, Aphredoderus.....	215
ophidianus.....	262	Catostomus.....	109
prometheus.....	261	Cyprinodon.....	181
serpens.....	261, 262	Eupomotis.....	302
Generosus, Catostomus (Acomus).....	104	Pomotis.....	301
Notolepidomyzon.....	104	gibbsii, Hemilepidotus.....	381
genizara, Rhabruba.....	426	Salmo.....	57
gentilis, Blennius.....	462	gibbus, Hypsilepis cornutus.....	128
Hypsoblennius.....	462	Liparis.....	400
Genyatremus.....	335	Lophius.....	505
luteus.....	335	Searus.....	433
Genyonemus.....	349	gigas Ephippus.....	358
fasciatus.....	351	Hippoglossus.....	221
lineatus.....	349	Perca.....	310
Genyorge.....	324	Sciæna.....	352
Genypterus omostigma.....	485	Seriola.....	279
Genytremus.....	332	Stereolepis.....	308
interruptus.....	332	giganteus, Dololepis.....	472
geometricus, Anchisomus.....	499	Gila.....	114
Diodon.....	502	allinis.....	114
lineatus, Diodon.....	502	ardesiaca.....	118
Tetradon.....	499	conocephala.....	113
Zeus.....	275	conspersa.....	120
Geophagus.....	424	elegans.....	114
crassilabris.....	424	emoryi.....	114
cupido.....	424	estor.....	121
demon.....	424	gibbosa.....	119
magasema.....	424	gracilis.....	114
(Satanoperca) crassilabris.....	424	grahami.....	114
georgianus, Exocoetus.....	200	graudis.....	114
Gephyrocharax.....	96	gula.....	120
atricaudata.....	96	microlepidota.....	112
atricaudatus.....	96	minacæ.....	114
chocensis.....	96	naerea.....	114
intermedius.....	96	nigra.....	119
gerania, Belone.....	196	pulchella.....	119, 120
germanus, Notropis.....	136	robusta.....	114
Germo.....	260	seminuda.....	114
alalunga.....	260	gila, Catostomus.....	106
germo.....	260	gilberti, Ariosoma.....	80
germo, Germo.....	260	Careproctus.....	402
Scomber.....	260	Cetengraulis.....	51
germon, Scomber.....	260	Chlopsis.....	82
Gerris.....	341	Citharichthys.....	219
aprior.....	342	Congrellus.....	80
aureolus.....	342	Galeichthys.....	150
axillaris.....	342	Hubbesia.....	248
brasiliensis.....	342	Hybopsis.....	134
brevimanus.....	343	Hypsoblennius.....	462
brevirostris.....	342	Ilyonus.....	445
cinereus.....	341	Imostoma.....	286
embryx.....	342	Isesthes.....	462
gula.....	340, 341	Lepidogobius.....	445
havana.....	342	Notropis.....	134
jonesii.....	341	Noturus.....	156
lineatus.....	342	Oncoceottus.....	389
mexicanus.....	343	hexacornis.....	389
olisthostoma.....	342	Podotheus.....	395
patao.....	342	Pteropodus.....	369
peruvianus.....	342	Rabida.....	156
plumieri.....	342, 343	Salmo.....	58
rhombus.....	342	gairdneri.....	58
simillimus.....	342	Sebastodes.....	369
squampinnis.....	342	Stolephorus.....	51
vaigiensis.....	341	Ulocentra.....	286
zebra.....	342	Gilbertidia.....	392
Gerridae.....	340	sigulatus.....	393
Gerris.....	341	Gilbertina.....	392
ghini, Orthogoriscus.....	503	sigalutes.....	392, 393
gibba, Histrio.....	505	Gillellus.....	455
gibber, Salmo.....	54	arenicola.....	455
gibbiceps, Heros.....	417	ornatus.....	455
Theraps.....	417	semicinctus.....	455
gibbifrons, Cypselurus.....	202	gilli, Avocettina.....	83
Exocoetus.....	202	Chinus.....	460
gibbonsi, Holconotus.....	412	Hyporhamphus.....	198
Gibbonsia.....	458	Labichthys.....	83
elegans.....	458	Leuciscus.....	118
montereyensis.....	458		

List of scientific names—Continued

	Page		Page
gilli, <i>Malacoctenus</i>	460	glauca, <i>Ciliata</i>	208
Pholis.....	468	Lichia.....	276
Pleuronectes.....	228	Prionace.....	17
Synchirus.....	393	glaucofrænum, <i>Coryphopterus</i>	439
Gillia.....	444	Rhinogobius.....	439
gillianus, <i>Julis</i>	429	glaucopeus, <i>Acanthurus</i>	363
Gillias.....	458	Glaucostegus.....	23
jordani.....	458	glaucoctictus, <i>Rhinobatus</i>	23
Gillichthys.....	444	glaucoctigma, <i>Rhinobatos</i>	24
detrusus.....	444	Rhinobatus.....	24
guayamasiae.....	444	glaucum, <i>Stizostedion</i>	282
mirabilis.....	444	glaucus, <i>Chaetodon</i>	276
y-cauda.....	444	Emmelas.....	364
gillii, <i>Bassogigas</i>	482	Galeus.....	17
Cetomimus.....	172	Sebastes.....	364
Eupomacentrus.....	414	Squalus.....	17
Lepomis.....	366	Trachynotus.....	276
Lipogenys.....	75	globiceps, <i>Agonostoma</i>	255
Neobythites.....	481	Blennicottus.....	391
Pomacentrus.....	414	bryosus, <i>Blennicottus</i>	391
Sebastes.....	368	Gasterosteus.....	238
Sebastomus.....	368	Joturus.....	255
Stephanoberyx.....	232	Oligocottus.....	391
Xiphophorus.....	192	globosa, <i>Lyosphæra</i>	503
Xystroplites.....	301, 302	globosum, <i>Astatheros</i>	421
Ginglymodi.....	36	Cichlasoma.....	421
Ginglymostoma.....	12	gloriosus, <i>Bryttus</i>	304
cabo-verdianus.....	12	Enneacanthus.....	304
cirratus.....	12	Glossamia <i>pandionis</i>	296
fulvum.....	12	Glossichthys.....	230
Ginglymostomida.....	12	Glossodon.....	40
giorna, <i>Cephalopterus</i>	32	harengoides.....	40
girardi, <i>Acipenser</i>	34	heterurus.....	40
Caranx.....	272	glossodonta, <i>Argentina</i>	40
Pseudojulis.....	428	Glossodus.....	39
Girardinichthys.....	182	forskåli.....	40
innominatus.....	182	Glossoplites.....	302
limurgus.....	183	gloveri, <i>Salmo</i>	56
Girardinus.....	189	glutinosus, <i>Myxine</i>	8
creolus.....	189	Glyphidodon <i>chrysurus</i>	415
denticulatus.....	189	rudis.....	415
garmani.....	189	saxatilis.....	415
guppil.....	191	taurus.....	415
metallicus.....	189	trocheli.....	415
pleurospilus.....	140	Glyphisodon.....	414
sonoriensis.....	189	chrysurus.....	415
uninotatus.....	188	moucharra.....	415
versicolor.....	191	rubicundus.....	415
Girella.....	338	Glyptocephalus.....	228
dorsomaculata.....	339	acadianus.....	228
nigricans.....	339	cynoglossus.....	228
punctata.....	338	pacificus.....	228
simplicidens.....	339	zachirus.....	228
Girellidae.....	338	Gnathanodon.....	273
Giton.....	101	Gnathobolus.....	45
glaber, <i>Cottus</i>	487	Gnathocentrus.....	362
Cyclopteroichthys.....	208	Gnathodon.....	273
Pleuronectes <i>maculatus</i>	209	spinosus.....	273
glabra, <i>Acipenser</i>	34	Gnathochil, <i>Pachiosaurus</i>	444
Liopsetta.....	227	Scarus.....	434
Platessa.....	227	Gnatholepis.....	442
Pleuronectes <i>satis</i> larva et.....	217	thompsoni.....	443
gloensis, <i>Cottus</i>	357	Gnathophis.....	80
Liopsetta.....	227	guppil.....	80
Pleuronectes.....	227	heteroganthus.....	80
Scopelus.....	170	proriger.....	80
Squalus.....	22	Gnathypops.....	453
glacoides, <i>Trachynotus</i>	276	aurifrons.....	453
gladifer, <i>Istiophorus</i>	263	cuvieri.....	453
gladiunculus.....	238	macrops.....	453
bispinosus.....	238	maxillosa.....	453
gladiunculus, <i>Gasterosteus</i>	238	mystacina.....	453
gladius, <i>Histiophorus</i>	263	mystacinus.....	453
Notistium.....	263	rhomalea.....	453
Scomber.....	263	scops.....	453
Tylosurus.....	196	snyderi.....	453
Xiphias.....	264	Gobiesocidae.....	488
Glanostoml.....	33	Gobiasox.....	488
Glanichthys.....	188	adustus.....	489
fulvus.....	188	andromedus.....	489
torquatus.....	188	ocellatus.....	489, 489
uninotatus.....	188	ocellatus.....	489
Glaridodon.....	188	costaricensis.....	489
latidens.....	188, 189	eigenmanni.....	490
		eos.....	491

List of scientific names—Continued

	Page		Page
<i>Gobiesox, erythrops</i>	490	<i>Gobius, claytonii</i>	439
<i>funnebris</i>	489	<i>cristagalli</i>	438
<i>gyrinus</i>	489	<i>crista-galli</i>	438
<i>haeres</i>	490	<i>curaçao</i>	439
<i>humeralis</i>	490	<i>cyprinoides</i>	438
<i>macropthalmus</i>	489	<i>dalli</i>	442
<i>marmoratus</i>	488	<i>dolichocephalus</i>	442
<i>muscarum</i>	490	<i>eigenmanni</i>	439
<i>nigripinnis</i>	489	<i>emblematicus</i>	443
<i>papillifer</i>	488	<i>enceomus</i>	439
<i>pinniger</i>	488	<i>fuscus</i>	440
<i>rhessodon</i>	490	<i>garmani</i>	439
<i>rhodospilus</i>	489	<i>gracilis</i>	444
<i>(Rimicola) beryllinus</i>	490	<i>gronovii</i>	268
<i>rupestris</i>	491	<i>gulosus</i>	443
<i>sancti-martini</i>	490	<i>hemigymnus</i>	445
<i>strumosus</i>	489	<i>hipoliti</i>	440
<i>tudes</i>	489	<i>homocyanus</i>	440
<i>virgatulus</i>	489	<i>kraussi</i>	441
<i>vittatus</i>	489	<i>lacertus</i>	440
<i>yuma</i>	490	<i>lanceolatus</i>	441
<i>zebra</i>	491	<i>lepidus</i>	444
<i>Gobiidae</i>	438	<i>lineatus</i>	440, 446
<i>Gobio aestivalis</i>	138	<i>longicaudus</i>	441
<i>cataractæ</i>	139	<i>lucetiae</i>	443
<i>gelidus</i>	138, 139	<i>lyricus</i>	441
<i>plumbeus</i>	136	<i>manglicola</i>	439
<i>vernalis</i>	137	<i>mapo</i>	440
<i>gobio, Clinus</i>	455, 456	<i>martinicus</i>	442
<i>Cottus</i>	383	<i>mexicanus</i>	442
<i>Gobioclinus</i>	456	<i>microdon</i>	441
<i>Gobioclinus</i>	455	<i>nebulopunctatus</i>	440
<i>gobio</i>	456	<i>nebulopunctatus</i>	440
<i>Gobioides</i>	448	<i>newberryi</i>	444
<i>barreto</i>	448	<i>nicholsii</i>	440
<i>broussonnetii</i>	448	<i>niger</i>	440
<i>gobioides, Cottus</i>	385	<i>oblongus</i>	448
<i>Hypsicometes</i>	451	<i>oceanicus</i>	441
<i>Gobioididae</i>	448	<i>ocellaris</i>	442
<i>Gobiomorus</i>	435	<i>padangensis</i>	440
<i>dormitor</i>	435	<i>paradoxus</i>	445
<i>lateralis</i>	436	<i>parvus</i>	439
<i>Gobionellus</i>	440	<i>pisonis</i>	436
<i>bayamonensis</i>	441	<i>plumieri</i>	447
<i>hastatus</i>	440, 441	<i>poeiyi</i>	442
<i>lyricus</i>	441	<i>punctillatus</i>	440
<i>microdon</i>	441	<i>quadriporus</i>	439
<i>oceanicus</i>	441	<i>sandviensis</i>	440
<i>sagittula</i>	441	<i>semifasciatus</i>	441
<i>smaragdus</i>	441	<i>seminudus</i>	445
<i>strigatus</i>	441	<i>shufeldti</i>	439
<i>stigmaticus</i>	441	<i>smaragdus</i>	440, 441
<i>gobionum, Campostoma</i>	146	<i>soporator</i>	440
<i>Gobiosoma</i>	445	<i>stigmaturus</i>	439
<i>alepidotum</i>	446	<i>taiasica</i>	442
<i>bosci</i>	446	<i>thalassinus</i>	444
<i>cathoecum</i>	446	<i>townsendi</i>	444
<i>crenatale</i>	446	<i>translucens</i>	440
<i>crenentalis</i>	446	<i>viridi pallidus</i>	446
<i>histrio</i>	446	<i>wurdemanni</i>	441
<i>horsti</i>	446	<i>zebra</i>	441
<i>ios</i>	445	<i>Goboides</i>	435
<i>longipinne</i>	445	<i>godmani, Pimelodus</i>	157
<i>longum</i>	446	<i>Rhamdia</i>	157
<i>molestum</i>	446	<i>godmani, Cichlaurus</i>	416
<i>multifasciatum</i>	446	<i>heros</i>	416
<i>zosterurum</i>	445	<i>Rivulus</i>	180
<i>Gobius</i>	440	<i>goldmani, Batrachoides</i>	487
<i>albopunctatus</i>	440	<i>gomesii, Ophichthus</i>	88
<i>alepidotus</i>	445, 446	<i>Ophisurus</i>	87, 88
<i>amoren</i>	445	<i>gomphodon, Oxyrhina</i>	19
<i>anierensis</i>	442	<i>Gonenion</i>	280
<i>aradatus</i>	441	<i>serra</i>	280
<i>banana</i>	442	<i>Goniobatis</i>	30
<i>bayamonensis</i>	441	<i>macroptera</i>	30
<i>boleosoma</i>	439	<i>Goniodus</i>	22
<i>bosci</i>	445, 446	<i>Gonionarce</i>	27
<i>bosclii</i>	442	<i>Gonioplectrus</i>	308
<i>brasilensis</i>	448	<i>hispanus</i>	308
<i>breviceps</i>	440	<i>Gonocephalus</i>	408
<i>brunneus</i>	440	<i>macrocephalus</i>	408
<i>carolinensis</i>	440	<i>Gonocheilodon</i>	359
<i>catulus</i>	440	<i>Gonopterus</i>	362
<i>chiquita</i>	443	<i>moerens</i>	362
		<i>moerens</i>	362

List of scientific names—Continued

	Page		Page
Gonostoma.....	72	gracilis, Scopelus.....	169
denuclata.....	72	Tigoma.....	119
denuclatum.....	72	Umbrina.....	351
elongatum.....	72	Xiphophorus.....	185
microdon.....	72	gracilispinis, Dolopichthys.....	509
Gonostomidae.....	72	gracillipes, Lamemonema.....	213
Goodea.....	183	gracilosus, Pimelodus.....	152
atripinnis.....	183	gracilis, Hypsagonus.....	393
calientis.....	184	gracilis, Ophidion.....	485
captiva.....	184	grahami, Gila.....	114
luitpoldi.....	184	Oligocephalus.....	291
toweri.....	184	grallator, Benthosaurus.....	166
whitei.....	183	Gamma.....	322
goodei, Actinotatus.....	31	loreto.....	322
Aldrovandia.....	75	Grammatas.....	336
Centropholis.....	266	medius.....	337
Chriopeops.....	175	grammaticum, Thalassoma.....	429
Erimyzon.....	109	Grammatopleurus.....	373
Halosaurus.....	75	Grammatostomias.....	70
Lucania.....	175	dentatus.....	70
Myliobatis.....	31	Grammichthys.....	229
Paralanechurus.....	351	Grammicolepidae.....	232
Ptilichthys.....	471	Grammicolepis.....	232
Sebastodes.....	364	brachiusculus.....	232
Spinivomer.....	81	Grammiconotus.....	197
Trachinotus.....	277	bicolor.....	197
Urolophus.....	30	Grammistes acuminatus.....	353
Urotrygon.....	30	hepatus.....	335
Zaclemus.....	351	mauriti.....	332
Goodeidae.....	182	trivittatus.....	331
goodii, Macrurus.....	203	granadense, Astatheros.....	421
Nematonurus.....	203	Cichlasoma.....	421
gorbuscha, Oncorhynchus.....	54	grandicassis, Arius.....	149
Salmo.....	54	grandiceps, Microlepidium.....	211
Gordichthys.....	80	Paraliparis.....	404
irretitus.....	80	grandicomis, Auchenopterus.....	457
gorensis, Albula.....	40	grandicornis, Scorpæna.....	371
Hynnis.....	271	grandipinnis, Photogenis.....	129
Vomer.....	275	grandis, Fundulus.....	176
Gorgasia.....	77	Fundulus heteroclitus.....	176
punctata.....	77	Gila.....	114
gorgone, Cheirodon.....	96	Pomadasis.....	334
Compura.....	96	Pomadasy.....	334
gorensis, Vomer.....	275	Psychocheilus.....	114
gouani, Lepidopus.....	262	grandisquama, Eleotris.....	436
Trachipterus.....	216	grandisquamis, Chorojulius.....	426
gracile, Boleosoma.....	294	Upeneus.....	344
Myctophum.....	169	grandoculatus, Centropomus.....	306
Peristedion.....	405	grandocule, Chirostoma.....	251
gracilicauda, Macrourus.....	206	grandoculis, Atherinichthys.....	251
Macrurus.....	206	granulata, Perca.....	281
gracilicirrus, Umbrina.....	350	Raja.....	25
gracilior, Gambusia.....	186	Raja.....	25
gracilis, Aldrovandia.....	75	granulatus, Amorphocephalus.....	130
Atherinichthys.....	217	granulosa, Plect.....	23
Bathynectes.....	481	Gnathodius.....	133
Blennius.....	471	microdonatus.....	132, 133
Boleichthys.....	294	graya, Carpiodes.....	103
Catostomus.....	105	Lepidosteu.....	37
cayana, Cottus.....	360	grebnitzkii, Neoliparis.....	399
Chaetodon.....	360	Grobleva.....	399
Cottus.....	383, 385	rubello.....	391
Cyprinus (Leuciscus).....	136	groenii, Cottus.....	384
Diapterus.....	341	Parachthys.....	487
Gadella.....	211	Groenius.....	384
Gadus.....	210, 211	greeni, Couesius.....	137
Gambusia.....	185	Liparis.....	399
Gila.....	114	Neoliparis.....	399
Gobius.....	144	Polypera.....	399
Hippocampus.....	244	grex, Pneumatophorus.....	258
Hypobius.....	133	Scomber.....	258
Leptocephalus.....	79	greyi, Istiophorus.....	263
Leptogunnellus.....	470	grimaldii, Conchognathus.....	78
Leuciscus.....	128	grisea, Cynoperca.....	282
Lumpenus.....	470	Dionda.....	144
Lacodes.....	475	Lucioperca.....	282
Mollinesia.....	192	Parapetenia tetracantha.....	419
Mollinesia.....	192	Scomber.....	392
Moniana.....	131	griseolineatus, Syngnathus.....	240
Perca.....	281	griseus, Caranx.....	19
Photoneutes.....	70	Catostomus.....	107
Pimelodus.....	152	Catostomus (Acomus).....	107
Platygobio.....	136	Heros tetracanthus.....	419
Ptychocheilus.....	113, 114	Hexanchus.....	11
Scomber.....	258	Labrus.....	325

List of scientific names—Continued

	Page		Page
<i>griseus</i> , Lutianus.....	325, 326	<i>Gula</i> , Eucinostomus.....	341
<i>Mesoprius</i>	325	<i>Gerres</i>	340, 341
<i>Saurus</i>	163	<i>Gila</i>	120
<i>Squalus</i>	11	<i>gulo</i> , <i>Holocentrus</i>	308
<i>grixalvii</i> , <i>Astroblepus</i>	159	<i>gulonellus</i> , <i>Pogonichthys</i> (<i>Platygobio</i>).....	136
<i>gröenlandica</i> , <i>Microstomus</i>	68	<i>gulos</i> , <i>Cathorops</i>	151
<i>Nansenia</i>	68	<i>gulosus</i> , <i>Chanobryttus</i>	302
<i>gröenlandicus</i> , <i>Acanthocottus</i>	387	<i>Cottopsis</i>	383
<i>Aspidophoroides</i>	397	<i>Cottus</i>	383
<i>Cottus</i>	386, 387	<i>Gobius</i>	443
<i>Gunnellus</i>	468	<i>Microgobius</i>	443
<i>Himantolophus</i>	509	<i>Parachromis</i>	418
<i>Hippoglossus</i>	221	<i>Pomotis</i>	302, 303
<i>Salmo</i>	66	<i>Tachisurus</i>	151
<i>Gronias</i>	154	<i>gulula</i> , <i>Eucinostomus</i>	341
<i>nigrilabris</i>	154	<i>gummigutta</i> , <i>Hypoplectrus unicolor</i>	321
<i>gronovii</i> , <i>Gobius</i>	268	<i>Plectropoma</i>	321
<i>Nomeus</i>	268	<i>gundlachi</i> , <i>Dormitor</i>	436
<i>Ostracion</i>	497	<i>gunelliformis</i> , <i>Asternopteryx</i>	468
<i>Solea</i>	229	<i>Gunnellus</i>	467
<i>Zoarces</i>	473	<i>fabricii</i>	470, 471
<i>grossidens</i> , <i>Engraulis</i>	51	<i>gröenlandicus</i>	468
<i>Lyceengraulis</i>	51	<i>muranoi</i>	468
<i>Lyodapus</i>	479	<i>ornatus</i>	468
<i>grunniens</i> , <i>Ambiodon</i>	352	<i>ruberrimus</i>	468
<i>Aploidinotus</i>	352	<i>vulgaris</i>	467
<i>Mugil</i>	352	<i>gunnellus</i> , <i>Blennius</i>	467
<i>gryllus</i> , <i>Exocoetus</i>	200	<i>Pholis</i>	467
<i>Grytes lineatus</i>	373	<i>gunneri</i> , <i>Scomber</i>	217
<i>Guabicoara brasiliensis</i>	330	<i>Squalus</i>	20
<i>guacamaia</i> , <i>Pseudoscarus</i>	435	<i>gunnisonii</i> , <i>Cyprinella</i>	130
<i>Scarus</i>	435	<i>güntheri</i> , <i>Alvordius</i>	283
<i>Guacamaya</i>	435	<i>Aspidophoroides</i>	397
<i>guacari</i> , <i>Hypostomus</i>	160	<i>Halosaurus</i>	74
<i>guachanco</i> , <i>Sphyræna</i>	255	<i>Hoplopagrus</i>	324
<i>guacharote</i> , <i>Ancistrus</i>	161	<i>Lampanyctus</i>	167
<i>Hypostomus</i>	161	<i>Mugil</i>	253
<i>guadalupa</i> , <i>Atherinops insularum</i>	252	<i>Sphyræna</i>	255
<i>guadalupensis</i> , <i>Amia</i>	296	<i>Ulcina</i>	397
<i>Apogon</i>	296	<i>Xiphophorus</i>	193
<i>guaican</i> , <i>Echeneis</i>	449	<i>Xiphophorus helleri</i>	193
<i>Guamaicu atinga</i>	502	<i>guntheriana</i> , <i>Alutera</i>	496
<i>Guamajacu guara</i>	501	<i>guppii</i> , <i>Congromuræna</i>	80
<i>guanabana</i> , <i>Erizo</i>	501	<i>Girardinus</i>	191
<i>Guaperva</i>	491	<i>Gnathophis</i>	80
<i>lata</i>	492	<i>Gurnardus</i>	406
<i>guara</i> , <i>Guamajacu</i>	501	<i>birostratus</i>	406
<i>Guarapuca</i>	257	<i>gymnostethus</i>	406
<i>guasa</i> , <i>Serranus</i>	312	<i>loxias</i>	406
<i>guatemalensis</i> , <i>Anacyrtus</i>	98	<i>ruscarius</i>	406
<i>Arius</i>	150	<i>xenisma</i>	406
<i>Brycon</i>	98	<i>guttata</i> , <i>Limamuræna</i>	90
<i>Chirostoma</i>	249	<i>Perca</i>	311
<i>Citharichthys</i>	219	<i>Raia</i>	28
<i>Fundulus</i>	174	<i>Scorpena</i>	371
<i>Galeichthys</i>	150	<i>guttatus</i> , <i>Astrodermus</i>	264
<i>Pimelodus</i>	157	<i>Astroscopus</i>	454
<i>Rhania</i>	157	<i>Balistes</i>	492
<i>Rœboides</i>	98	<i>Bodianus</i>	309
<i>Thyrina</i>	249	<i>Chirus</i>	373
<i>Guativere amarillas</i>	309	<i>Dasyatis</i>	28
<i>guativere</i> , <i>Bodianus</i>	309	<i>Epinephelus</i>	311
<i>Guatucupa juba</i>	332	<i>Johnius</i>	313
<i>Guavina</i>	435, 436	<i>Labrus</i>	426
<i>guavina</i>	436	<i>Lutianus</i>	326
<i>guavina</i> , <i>Eleotris</i>	436	<i>Mesoprius</i>	326
<i>Guavina</i>	436	<i>Ophisurus</i>	87
<i>guayamasæ</i> , <i>Gillichthys</i>	444	<i>Perca</i>	308
<i>guaza</i> , <i>Epinephelus</i>	310	<i>Percopsis</i>	214, 215
<i>Labrus</i>	310	<i>Pomotis</i>	304
<i>guentheri</i> , <i>Galeichthys</i>	149	<i>Zeus</i>	216
<i>Homalogryles</i>	310	<i>Zygonectes</i>	178
<i>Mugil</i>	253	<i>guttavarium</i> , <i>Plectropoma</i>	321
<i>Sirenho</i>	483	<i>guttavarius</i> , <i>Hypoplectrus unicolor</i>	321
<i>Guentheridia</i>	500	<i>guttifer</i> , <i>Ophichthys</i>	87
<i>formosa</i>	500	<i>Ophichthys</i>	87
<i>guanensis</i> , <i>Anchoviella</i>	49	<i>guttulata</i> , <i>Hypsopsetta</i>	225
<i>Stolephorus</i>	49	<i>guttulatus</i> , <i>Cichlaurus</i>	416
<i>Strongylura</i>	196	<i>Heros</i>	416
<i>Tylosurus</i>	196	<i>Pisodonophis</i>	85
<i>guichenoti</i> , <i>Callechelys</i>	86	<i>Pleuronichthys</i>	225
<i>Cayennia</i>	448	<i>guzmaniensis</i> , <i>Catostomus</i> (<i>Acomus</i>).....	104
<i>guija</i> , <i>Thyrina</i>	248	<i>Gymnacanthus</i>	389
<i>guineensis</i> , <i>Ostracion</i>	497	<i>galeatus</i>	389
<i>Guiritinga</i>	149	<i>Gymnachirinae</i>	229

List of scientific names—Continued

	Page		Page
<i>Gymnachirus</i>	229	<i>gymnurus</i> , <i>Gasterosteus</i>	237
<i>fasciatus</i>	229	<i>gyrans</i> , <i>Querimana</i>	253
<i>nudus</i>	229	<i>Gyrinichthys</i>	403
<i>Gymneipignathus</i>	270	<i>minyremus</i>	403
<i>Gymneleotris</i>	438	<i>gyrinops</i> , <i>Cyclopteroides</i>	398
<i>seminuda</i>	438	<i>gyrinus</i> , <i>Eleotris</i>	436
<i>Gymnelis</i>	477	<i>Eurymen</i>	401
<i>conorhynchus</i>	477	<i>Gobiesox</i>	489
<i>pictus</i>	477	<i>Schilbeodes</i>	155
<i>stigma</i>	477	<i>Silurus</i>	155
<i>viridis</i>	477	<i>Gyropleurodus</i>	10
<i>unimaculatus</i>	477	<i>francisci</i>	10
<i>Gymnelus pictus</i>	477		
<i>Gymnocanthus</i>	389	<i>Hadropterus</i>	283
<i>galeatus</i>	389	<i>evermanni</i>	284
<i>pistilliger</i>	389	<i>maculatus</i>	283
<i>tricuspis</i>	389	<i>maxinkuckiensis</i>	284
<i>Gymnocephalus</i>	267	<i>nigrofasciatus</i>	283
<i>messinensis</i>	267	<i>roanoka</i>	284
<i>ruber</i>	309	<i>sciurus</i>	284
<i>Gymnoclinus</i>	466	<i>serrula</i>	284
<i>cristulatus</i>	466	<i>sellaris</i>	284
<i>Gymnodontes</i>	497	<i>schumardi</i>	285
<i>Gymnogaster</i>	262	<i>tessellatus</i>	289
<i>arcticus</i>	216	(<i>Hydropterus</i>) <i>cymatotenia</i> , <i>Etheostoma</i>	285
<i>gymnogaster</i> , <i>Sicydium</i>	447	<i>nianqua</i> , <i>Etheostoma</i>	285
<i>Gymnomurana</i>	94	<i>ouchitae</i> , <i>Etheostoma</i>	284
<i>doliata</i>	94	<i>squamatus</i> , <i>Etheostoma</i>	285
<i>nectura</i>	95	<i>hæmaturus</i> , <i>Hybopsis</i>	145
<i>Gymnonoti</i>	101	<i>Hæmulidae</i>	329
<i>Gymnotus acus</i>	486	<i>Hæmulon</i>	329
<i>carapo</i>	486	<i>acutum</i>	329
<i>Gymnopsis</i>	94	<i>albidum</i>	329
<i>Gymnosarda</i>	258	<i>album</i>	329
<i>gymnostethus</i> , <i>Gurnardus</i>	406	<i>arara</i>	330
<i>Prionotus</i>	406	<i>arcuatum</i>	330
<i>Gymnothorax</i>	91	<i>aurolineatum</i>	331
<i>afæ</i>	91	<i>bonariense</i>	329
<i>albimentis</i>	93	<i>brevirostrum</i>	330
<i>aquædulcis</i>	93	<i>canna</i>	329
<i>brunneus</i>	92	<i>carbonarium</i>	330
<i>carcinognathus</i>	93	<i>caudimacula</i>	329
<i>castaneus</i>	92	<i>chromis</i>	329
<i>catenatus</i>	94	<i>chrysargyreum</i>	330, 331
<i>chleavastes</i>	93	<i>chrysopiterum</i>	329
<i>concolor</i>	93	<i>continuum</i>	329
<i>conspersus</i>	92	<i>corvinæforme</i>	333
<i>dovii</i>	92	<i>corvineformis</i>	333
<i>elaboratus</i>	93	<i>dorsale</i>	330
<i>flavoscriptus</i>	91	<i>elegans</i>	329
<i>funebis</i>	92	<i>flaviguttatus</i>	331
<i>jordani</i>	92	<i>flavolineatum</i>	330
(<i>Limamuræna</i>) <i>argus</i>	90	<i>formosum</i>	330
<i>miliaris</i>	92	<i>frenebrundum</i>	329
<i>morfax</i>	91	<i>heterodon</i>	330
<i>normani</i>	91	<i>hians</i>	330
<i>murina</i>	91	<i>jeniguano</i>	331
<i>nigromaculatus</i>	90	<i>labridum</i>	332
<i>obscureatus</i>	93	<i>luteum</i>	330
<i>ocellatus</i>	91, 93	<i>macrostoma</i>	329
<i>nigromaculatus</i>	93	<i>macrostomum</i>	329
<i>oxycephalus</i>	93	<i>maculosum</i>	329
<i>picturatus</i>	91	<i>margaritiferrum</i>	331
<i>polyzonus</i>	92	<i>mazatlanum</i>	331
<i>punctatum</i>	92	<i>melanurum</i>	330
<i>punctatum</i>	92	<i>microphthalmum</i>	329
<i>retractus</i>	91	<i>moxybray</i>	329
<i>sancta-helenæ</i>	92	<i>multilineatum</i>	330
<i>scriptus</i>	92	<i>notatum</i>	329
<i>umbrosum</i>	90	<i>obtusum</i>	332
<i>verilli</i>	93	<i>parra</i>	329
<i>versipunctatus</i>	92	<i>plumieri</i>	330
<i>vicinus</i>	92	<i>quadrilineatum</i>	331
<i>virens</i>	92	<i>quinquelineatum</i>	331
<i>Gymnotidae</i>	101	<i>retrocurrens</i>	329
<i>Gymnotorpedo</i>	27	<i>rimator</i>	331
<i>Gymnotus</i>	101	<i>sebrankii</i>	330
<i>acus</i>	101	<i>sciurus</i>	330
<i>albifrons</i>	101	<i>seudleri</i>	330
<i>albus</i>	101	<i>serratum</i>	329
<i>carapo</i>	101	<i>sexfasciatum</i>	329
<i>fasciatus</i>	101	<i>sexfasciatus</i>	329
<i>macrourus</i>	101	<i>similis</i>	330
<i>macurus</i>	101	<i>steindachneri</i>	330
<i>putaol</i>	101	<i>subarcuatum</i>	330
<i>gymnura</i> , <i>Trygon</i>	28	<i>tæniatum</i>	330, 331

List of scientific names—Continued

	Page		Page
<i>Hæmulon undecimale</i>	330	<i>Harpe cœruleo-aureus</i>	425
<i>xanthopteron</i>	330	<i>diplotenia</i>	425
<i>Hæmulopsis</i>	333	<i>pectoralis</i>	425
(<i>Hæmulopsis</i>) <i>axillare</i> , <i>Pristipoma</i>	333	<i>rufa</i>	309
<i>brevipinne</i> , <i>Pristipoma</i>	335	<i>harperi</i> , <i>Spheroides</i>	498
<i>nitidum</i> , <i>Pristipoma</i>	333	<i>Sphæroides</i>	498
<i>hæres</i> , <i>Gobiesox</i>	490	<i>Harpurus</i>	362
<i>Sicyases</i>	490	<i>fasciatus</i>	362
<i>Halatractus</i>	279	<i>harringtonensis</i> , <i>Atherina</i>	246
<i>dorsalis</i>	279	<i>harringtoni</i> , <i>Axyrias</i>	377
<i>halec</i> , <i>Clupea</i>	41	<i>Harriotta</i>	33
<i>Halecomorphi</i>	38	<i>curtiss-jamesi</i>	33
<i>Halecula</i>	46	<i>raleighana</i>	33
<i>acuminata</i>	46	<i>harroweri</i> , <i>Isopisthus</i>	354
<i>Halias</i>	479	<i>harti</i> , <i>Haplochilus</i>	180
<i>Halichæres</i>	426	<i>Rivulus</i>	180
<i>californicus</i>	428	<i>hasselti</i> , <i>Caranx</i>	270
<i>sellifer</i>	428	<i>Paraserranus</i>	318
<i>Halieutæa</i>	507	<i>hasta</i> , <i>Lutjanus</i>	334
<i>spongiosa</i>	508	<i>hastata</i> , <i>Pastinaca</i>	28
<i>stellata</i>	507	<i>hastatus</i> , <i>Dasyatis</i>	28
<i>Halieutella</i>	508	<i>Gobionellus</i>	440, 441
<i>lappa</i>	508	<i>hastingsi</i> , <i>Lutjanus</i>	326
<i>Halientichthys</i>	507	<i>Neomænis</i>	326
<i>aculeatus</i>	507	<i>Haustor</i>	152
<i>caribbaeus</i>	507	<i>catus</i>	153
<i>reticulatus</i>	507	<i>dugesi</i>	153
<i>smithii</i>	507	<i>lacustris</i>	152
<i>Haliperca</i>	318	<i>lophius</i>	153
<i>halleri</i> , <i>Urobatis</i>	29, 30	<i>lupus</i>	153
<i>Urolophus</i>	29	<i>okeechobeensis</i>	152
<i>Haloporphyrus viola</i>	211	<i>pricei</i>	153
<i>Haloporphyrus</i>	211	<i>havana</i> , <i>Gerres</i>	342
<i>halops</i> , <i>Acipenser</i>	34	<i>Xystæma</i>	342
<i>Halosaurichthys</i>	74	<i>havannensis</i> , <i>Murena</i>	87
<i>Halosauride</i>	74	<i>hawaliensis</i> , <i>Elops</i>	39
<i>Halosauropsis</i>	75	<i>hawaliensis</i> , <i>Macrorhamphosus</i>	246
<i>Halesaurus</i>	74	<i>haydeni</i> , <i>Ptychostomus</i>	109
<i>attenuatus</i>	75	<i>hayi</i> , <i>Hybognathus</i>	144
<i>goodei</i>	75	<i>hearnei</i> , <i>Salmo</i>	60
<i>guntheri</i>	74	<i>heathi</i> , <i>Schedophilus</i>	268
<i>macrochir</i>	75	<i>heckeli</i> , <i>Acus</i>	244
<i>oweni</i>	74	<i>Balistes</i>	493
<i>ovenii</i>	74	<i>Gambusia</i>	185
<i>radiatus</i>	74	<i>Nerophis</i>	244
<i>rostrata</i>	75	<i>hedricki</i> , <i>Astatheros</i>	421
<i>rostratus</i>	75	<i>Cichlasoma</i>	421
<i>hamatus</i> , <i>Icelus</i>	378	<i>heermanni</i> , <i>Amphistichus</i>	411
<i>hamiltoni</i> , <i>Brachioptilon</i>	32	<i>heilneri</i> , <i>Labrisomus</i>	459
<i>Hippoglossoides</i>	222	<i>Heiropetra</i>	25
<i>Manta</i>	32	<i>helenæ</i> , <i>Murena</i>	90
<i>hammondi</i> , <i>Pimelodus</i>	152	<i>Murænophis</i>	90
<i>hammondi</i> , <i>Percopsis</i>	215	<i>Heliases</i>	413
<i>Semotilus</i>	117	<i>enchrysurus</i>	413
<i>hankinsoni</i> , <i>Parartedius</i>	377	<i>insolatus</i>	413
<i>Haplochilus dovii</i>	179	<i>marginatus</i>	413
<i>floripinnis</i>	177	<i>multilineatus</i>	412
<i>harti</i>	180	<i>Heliastes</i>	413
<i>melanops</i>	185	<i>Helicolenus</i>	370
<i>Haplodoci</i>	486	<i>dactylopterus</i>	370
<i>haplognatha</i> , <i>Helioperca</i>	301	<i>maderensis</i>	370
<i>haplognathus</i> , <i>Lepomis</i>	301	<i>Helioperca</i>	301
<i>Haplodonotus</i>	352	<i>bombifrons</i>	301
<i>Haplomi</i>	172	<i>haplognatha</i>	301
<i>hardwickei</i> , <i>Ratabouri</i>	89	<i>incisor</i>	301
<i>harengoides</i> , <i>Glossodon</i>	40	<i>macrochira</i>	301
<i>Harengula</i>	43	<i>marginata</i>	301
<i>callolepis</i>	43	<i>nephela</i>	301
<i>clupeola</i>	43	<i>helleri</i> , <i>Anchoiella</i>	48
<i>humeralis</i>	43	<i>brevis</i> , <i>Xiphophorus</i>	194
<i>latula</i>	43	<i>guntheri</i> , <i>Xiphophorus</i>	193
<i>macrophthalmus</i>	43	<i>Heros</i>	422
<i>maculosa</i>	43	<i>ranchovii</i> , <i>Xiphophorus</i>	193
<i>pensacola</i>	43	<i>strigatus</i> , <i>Xiphophorus</i>	193
<i>sardina</i>	43	<i>Thorichthys</i>	422
<i>thrissina</i>	43	<i>Xiphophorus</i>	193
<i>harengulus</i> , <i>Eucinostomus</i>	341	<i>helolepis</i> , <i>Trachyrincus</i>	203
<i>harengus</i> , <i>Clupea</i>	41	<i>Helmichthys</i>	79
<i>Lavinia</i>	113	<i>diaphanus</i>	79
<i>Leucichthys</i>	52	<i>Helmictis</i>	79
<i>Myxus</i>	253	<i>heloepis</i> , <i>Trachyrhynchus</i>	203
<i>Salmo</i> (<i>Coregonus</i>).....	62	<i>Trachyrincus</i>	203
<i>harfordi</i> , <i>Ptychocheilus</i>	114	<i>Helops</i>	34
<i>harlani</i> , <i>Lepidosteus</i>	37	<i>helops</i> , <i>Acipenser</i>	34
<i>Harpe</i>	425	<i>helvomaaculatus</i> , <i>Sebastes</i>	367
<i>cœruleo-aureum</i>	425	<i>Hemiancistrus</i>	161

List of scientific names—Continued

	Page		Page
Hemianthias.....	322	Hemitripterus.....	393
peruanus.....	322	americanus.....	393
vivanus.....	322	cavifrons.....	393
(Hemianthias) peruanus, Anthias.....	322	marmoratus.....	382, 393
Hemiaris.....	149	villosus.....	393
Hemibranchii.....	237	Hemixiphophorus.....	184, 185
Hemibrycon.....	97	hemphilli, Stathmonotus.....	465
dariensis.....	97	henlei, Carcharias.....	16
(Hemibrycon) polyodon, Tetragonopterus.....	97	Rhinotriacis.....	13, 14
Hemicarax.....	271	henshalli, Zygonectes.....	177
amblyrhynchus.....	271	henshavi, Rhinichthys.....	141
atrimanus.....	271	henshawi, Salmo.....	57
falcatus.....	271	hertz, Blennius.....	462
furthii.....	271	Hypsoblennius.....	462
leucurus.....	271	hepatus, Acanthurus.....	362
marginatus.....	271	Grammistes.....	335
rhomboides.....	271	Teuthis.....	362
zelotes.....	271	Hepsetia.....	246
Hemichatodon.....	359	evermanni.....	246
Hemieleotris.....	437	stipes.....	246
latifasciatus.....	437	hepsetus, Atherina.....	246, 247
Hemioxocetus.....	199	heptacanthus, Cheilodipterus.....	280
caudimaculatus.....	199	heraldi, Tetradon.....	499
Hemigalea.....	14	Herichthys.....	422
Hemigaleus.....	14	bocourti.....	423
microstoma.....	14	carpintis.....	423
pectoralis.....	14	cyanoguttatus.....	422
Hemigrammus.....	98	geddesi.....	423
compressus.....	97	pavonaceus.....	422
minutus.....	97	trocheli.....	423
unilineatus.....	98	underwoodi.....	423
hemigymna, Garmannia.....	445	herminier, Blennius.....	459
hemigymnus, Argyropelecus.....	74	Labrisomus.....	459
Gobius.....	445	Hermiulus.....	426
Hemilepidotus.....	380	Hermosilla.....	340
gibbsii.....	381	azurea.....	340
Hemilepidotus.....	381	robusta.....	340
jordani.....	381	Heros.....	416
tilen.....	381	atlinis.....	422
zapus.....	381	altifrons.....	420
hemilepidotus, Cottus.....	380, 381	angulifer.....	416
Hemilepidotus.....	381	aureus.....	422
Hemiodon.....	161	baltatus.....	418
depressus.....	161	basilaris.....	421
platycephalus.....	161	beni.....	419
hemiodon, Carcharias.....	17	balsanatus.....	416
Hemiodontidae.....	100	catolepis.....	422
Hemiorolichia.....	161	centracanthus.....	420
canaliculatus.....	161	(Cichlasoma) spinosissimus.....	420
Hemiphronte.....	304	citrinellus.....	420, 422
simulans.....	304	deppii.....	416
Hemipylus.....	114	dani.....	418
laeustris.....	114, 115	erythraeus.....	422
hemipylus, Cyprinus.....	115	friedrichstahli.....	418
Hemiramphidae.....	198	geddesi.....	423
Hemiramphus.....	199	gibbiceps.....	417
baleo.....	199	godmani.....	416
brasiliensis.....	199	guttulatus.....	416
brownii.....	199	helleri.....	422
fasciatus.....	198	heterodontus.....	420
filamentosus.....	199	intermedius.....	416
longirostris.....	198	istanus.....	418
macrochirus.....	199	labiatum.....	422
pieteri.....	198	labridens.....	419
pleii.....	199	lentiginosus.....	418
richardi.....	198	lobochilus.....	422
roberti.....	198	longimanus.....	420
rossi.....	198	maculipinnis.....	422
saltator.....	199	manganeti.....	418
unifasciatus.....	198	margaritifer.....	421
Hemirhamphus.....	218	melanopogon.....	421
aramaen.....	218	melanurus.....	416
finlayi.....	220	mento.....	419
fuscus.....	219	metopthalmus.....	416
guineensis.....	218	montezuma.....	421
ovalis.....	218	montaguensis.....	418
Hemistoma.....	433	multispinosus.....	423
reticulata.....	433	nebulifer.....	417
Hemistremia.....	121	nicaraguensis.....	418
maculata.....	135	nigricans.....	419
millneriana.....	121	nigrofasciatus.....	420
vittata.....	121	oblongus.....	421
Hemistripterichthys.....	353	octofasciatus.....	421

List of scientific names—Continued

	Page		Page
Heros parma	419	heterurus, Cypselurus	201
pavonaceus.....	422	Exocoetus.....	201
rostratus.....	421	Glossodon.....	40
salvini.....	418	hexacanthus, Centrarchus	304, 305
severus.....	416	Dipterodon.....	295
sieboldii.....	423	hexacornis, Cottus.....	388
spilurus.....	420	Onocottus.....	388
teporatus.....	422	hexagonatus, Stomias	69
tetracanthus cinctus.....	419	Hexagrammidae	373
griseus.....	419	Hexagrammos	373
latus.....	419	asper.....	373, 374
torralbasi.....	419	decagrammus.....	373
triagramma.....	418	lagocephalus.....	374
trimaculatum.....	420	octogrammus.....	374
troscheli.....	423	stelleri.....	373, 374
urophthalmus.....	418	supercilliosus.....	374
heros, Eupomotis	302	Hexagrammus scaber	374
Pomotis.....	302	hexagrammus, Labrus	374
Herotilapia	423	Hexanchidae	11
multi-spinosa.....	423	Hexanchus	11
Herpetoichthys	87	corinus.....	11
callisoma.....	88	griseus.....	11
ornatissimus.....	87	Hexanematichtys	149
sileatus.....	87	surinamensis.....	150
herschellus, Carelliparis	400	heyel, Rivulus	180
Liparis.....	400	hians, Abelennes	197
hertzbergi, Silurus	148	Belone.....	197
Hesperanthias	328	Hemulon.....	330
herperis, Priapichthys annectens	187	Myctophum.....	169
Hesperoleucus	121	Sayris.....	197
anticus.....	122	Hiatula	424
mearnsi.....	122	gardeniana.....	424
mitrulus.....	122	hiatula, Labrus	424
navarrænsis.....	121	hieroglyphicus, Zygonectes	178
parvipinnis.....	122	Hieroptera	24
subditus.....	122	abredonensis.....	24
symmetricus.....	121	Hildebrandia	80
venustus.....	122	flava.....	80
heteracantha, Rhamdia	158	hildebrandi, Opsanus	487
heteracanthus, Dolopichthys	510	hildebrandti, Etheostoma	291
Heterandria	188	Oligocephalus.....	291
aflinis.....	185	Hilgendorfia	404, 405
colombianus.....	189	hillianus, Etmopterus	21
cubensis.....	188	Exocoetus.....	200
formosa.....	188	Spinax.....	21
formosus.....	188	Himantolophidae	509
holbrookii.....	185, 188	Himantolophus	509
lutzi.....	189, 190	grœnlandicus.....	509
nobilis.....	185	reinhardtii.....	509
occidentalis.....	189	himantophorus, Callionymus	450
ommata.....	174	Hiodon	40
patruelis.....	184, 185	clodalis.....	40
zonata.....	191	selenops.....	41
heterandria, Limia	191	tergisus.....	40
heteroclitia, Cobitis	175	Hiodontidae	40
heteroclitus badius, Fundulus	176	hipoliti, Gobius	440
heteroclitus bermudæ, Fundulus	175	Hippichthys	243
heteroclitus fonticola, Fundulus	175	albirostris.....	243
heteroclitus, Fundulus	176	cayorum.....	243
heteroclitus grandis, Fundulus	176	heptagonus.....	243
heteroclitus macrolepidotus, Fundulus	176	spicifer.....	243
heterodon, Alburnops	136	Hippocampinae	244
Hemulon.....	330	Hippocampus	244
Hybopsis.....	136	brunneus.....	244
richardsoni, Hybopsis.....	136	fasciicularis.....	244
Heterodontidae	10	gracilis.....	244
heterodontus, Astatheros	420	heptagonus.....	243
Heros.....	420	hudsonius.....	244
heteroglossus, Gadus	210	ingens.....	244
Heterognathi	95	lævicaudatus.....	244
Heterognathus	250	marginatus.....	244
heterognathus, Gnathophis	80	punctulatus.....	244
heterolepis, Hybopsis	134	stylifer.....	244
Notropis.....	134	zostera.....	244
Heteromi	75	Hippoglossidae	221
Heterophallina	184, 186	Hippoglossina	222
Heterophallus	181	bollmani.....	223
rachovii.....	181	macrops.....	222, 223
Heterosomata	217	sabanensis.....	223
Heteroprosopon	225	stonata.....	223
heteropygus, Caranx	271	Hippoglossoides	222
Heterostichus	458	elassodon.....	222
rostratus.....	458	exilis.....	222
heterura, Clupea	46	hamiltoni.....	222
Compsura.....	95	jordani.....	222

List of scientific names—Continued

	Page		Page
<i>Hippoglossoides platessoides</i>	222	<i>holbrookii</i> , Sargus.....	338
robustus.....	222	<i>Holcomyeteronus</i>	481
<i>hippoglossoides</i> , <i>Pleuronectes</i>	221	digitatus.....	481, 482
keinhardtii.....	221	<i>Holconoti</i>	409
<i>Hippoglossus</i>	221	<i>Holconotus</i>	410, 411
brasilienis.....	224	agassizii.....	411
californicus.....	223	fuliginosus.....	411
gigas.....	221	gibbonsi.....	412
grœnlandicus.....	221	megalops.....	410
<i>hippoglossus</i>	221	rhodoterus.....	410
maximus.....	221	throwbridgei.....	409
ocellatus.....	218	holderi, <i>Alloclinus</i>	456
ponticus.....	221	Starksia.....	456
<i>hippoglossus</i> , <i>Hippoglossus</i>	221	holei, Makaira.....	263
<i>Pleuronectes</i>	221	Hollardia.....	491
<i>hippoides</i> , <i>Carangus</i>	273	hollardi.....	491
hippops, <i>Campostoma</i>	146	hollardi, <i>Hollardia</i>	491
hippos, <i>Caranx</i>	273	hollholli, <i>Cerantias</i>	508
Acomber.....	273	<i>Holocanthus</i>	498
hippurus, <i>Coryphæna</i>	264	leionothos.....	498, 499
hirudo, <i>Acanthurus</i>	362	lunatus.....	361
Ichthyomyzon.....	9	melanothos.....	497
<i>hirundinaceus</i> , <i>Squalus</i>	17	<i>holocanthus</i> , <i>Diodon</i>	501
<i>Hirundo</i>	409	<i>Holocentride</i>	234
<i>hirundo</i> , <i>Azurina</i>	412	<i>Holocentrum</i>	235
Leiocottus.....	309	cori-scutum.....	236
<i>Histiogobius</i>	306	longipinne.....	235
elongatus.....	308	marianum.....	236
levis.....	308	osculum.....	236
rubrivittatus.....	308	perlatum.....	236
sinensis.....	308	puncticulatus.....	236
zosterinus.....	308	retrospinis.....	236
<i>hispanis</i> , <i>Serrana</i>	353	riparium.....	236
<i>hispanum</i> , <i>Plectropoma</i>	308	rostratum.....	236
<i>hispanus</i> , <i>Gonioplectrus</i>	308	sancti-pauli.....	236
Serrana.....	353	sicciferum.....	236
<i>hispidus</i> , <i>Balistes</i>	494	suborbitale.....	236
Cottus.....	393	vexillarium.....	236
Monacanthus.....	494	<i>Holocentrus</i>	235
var. maculatus, <i>Tetrodon</i>	498	aurum.....	309
<i>Histiichthys</i>	215	bengalensis.....	324
<i>Histiogobius</i>	78	brachypterus.....	236
bathybius.....	78	coruscus.....	236
infundibulus.....	78	flavoceruleus.....	310
<i>Histiogobius</i>	456	gulo.....	308
vulgaris.....	456	meeki.....	236
<i>Histiogobius</i>	282	merou.....	310
bicolor.....	282	osculus.....	236
<i>Histiophryn</i>	236	rostratus.....	235
ancistrum.....	236	rufus.....	236
andrea.....	294	sancti-pauli.....	236
gladius.....	294	sanguineus.....	363
indianus.....	294	sogo.....	235
<i>Histrio</i>	304	striatus.....	235
gibbus.....	305	surinamensis.....	323
latus.....	305	tigrinus.....	319
pectus.....	304	tortuga.....	236
<i>histrio</i> , <i>Etheostoma</i> , <i>Eleotrida</i>	286	vexillarius.....	236
Gobiocottus.....	446	<i>Holocephali</i>	32
Lophus.....	361, 365	<i>holocyanos</i> , <i>Searus</i>	434
Scorpena.....	371	<i>Hololepis</i>	294
Ulocentrus.....	296	barratti.....	294
<i>hileus</i> , <i>Stolephorus</i>	48	erocerosus.....	294
<i>Holocanthus</i>	361	<i>hololepis</i> , <i>Cyprin</i>	232
clarionensis.....	361	Zenion.....	232
cornutus.....	361	holomelas, <i>Paraliparis</i>	404
formosus.....	361	<i>Holorhinus</i>	31
lunatus.....	361	<i>Holoste</i>	36
pauciflorus.....	361	<i>Holostomi</i>	76
triguttatus.....	361	<i>Holotrachys</i>	235
tibicen.....	361	lima.....	235
tricolor.....	361	holubi, <i>Cypselurus</i>	202
<i>holacanthus</i> , <i>Diodon</i>	501	Exocoetus.....	202
Neopocilia.....	190	<i>Homalagrion</i>	310
<i>holbrookii</i> , <i>Acipenser</i>	34	guentheri.....	310
Ambloia.....	406	<i>Homalopomus</i> throwbridgeii.....	214
Echeneis.....	449	Homesthes.....	463
Gambusia.....	184	caulopus.....	463
Heterandria.....	185, 188	homianus, <i>Squalus</i>	20
Ophidion.....	485	homocyanus, <i>Gobius</i>	440
Ophidium.....	485	homonymus, <i>Diapterus</i>	341
Pomotis.....	392	<i>Homopron</i>	346
<i>holbrookii</i> , <i>Diploia</i>	338	lanceolatus.....	346
Eupomotis.....	392	subtruncatus.....	345
Gambusia.....	185	(<i>Homopron</i>) fürthli, <i>Corvina</i>	347
<i>Pomotis</i>	392	homopterus, <i>Bathytroctes</i>	53

List of scientific names—Continued

	Page		Page
hopkinsi, Acutomentum.....	366	humilis, Pristipoma.....	334
Hynnis.....	274	Tetragonopterus.....	96
Mycteroperca.....	314	humilus, Pagellus.....	337
Plagiogrammus.....	469	huntia, Molva.....	212
Sebastodes.....	366	Huro.....	297
Hopladelus.....	155	floridana.....	297
Hoplias.....	99	nigricans.....	297
malabaricus.....	99	huronicus, Lepisosteus.....	36
microlepis.....	99	huronus, Argyrosomus.....	62
hopliticus, Paricelinus.....	375	Leucichthys sisco.....	62
hoplomystax, Searus.....	432	(Huso) anasimos, Acipenser.....	35
Sparisoma.....	432	anthracinus, Acipenser.....	35
Hoplopagridae.....	324	atelaspi, Acipenser.....	35
Hoplopagrus.....	324	copel, Acipenser.....	35
guntheri.....	324	kirtlandi, Acipenser.....	35
Hoplosternum.....	160	lamarii, Acipenser.....	35
punctatum.....	160	megalaspi, Acipenser.....	35
punctatus.....	160	nertinianus, Acipenser.....	35
(Hoplosternum) thoracatus, Callichthys.....	160	paranasimos, Acipenser.....	35
Hoplostethus.....	234	platyrhinus, Acipenser.....	35
cornutus.....	233	rafinesqui, Acipenser.....	35
mediterraneus.....	234	rauchi, Acipenser.....	35
Hoplunnis.....	81	richardsoni, Acipenser.....	35
diomedianus.....	81	rosarium, Acipenser.....	35
schmidtii.....	81	hyalina, Sudis.....	165
horatii, Hybopsis.....	134	hyalinus, Ceratichthys.....	137
Lepidosteus.....	345	Erinemus.....	137
Notropis.....	134	hyalope, Squalius.....	117
horkeli, Rhinobatos.....	23	Hybognathus.....	143
horrens, Prionotus.....	408	argyritis.....	144
horridus, Brachysomophis.....	89	civilis.....	144
horsti, Gobiosoma.....	446	(Dionda) punctifer.....	144
hoskynii, Bathyclupea.....	281	evansi.....	143
hospes, Mugil.....	254	flavipinnis.....	144
Querimana.....	254	hayi.....	144
houghi, Pimelodus.....	152	nigrotentato.....	144
hoyi, Argyrosomus.....	64	nuchalis.....	143, 144
Coregonus.....	62	osmerinus.....	143
Leucichthys.....	64	placitus.....	143
Pimelodus.....	154	procne.....	133
Uranidea.....	386	regius.....	143
hubbardi, Parophrys.....	226	siderius.....	140
Hubbesia.....	248	stramineus.....	133
gilberti.....	248	volucellus.....	133
huberi, Priapichthys.....	187	(Hybognathus) siderius, Hyborhynchus.....	140
hudsonia, Clupea.....	132	Hybopsis.....	117, 133
hudsonicus, Salmo.....	60	vestivalis marconis.....	138
Hudsonius.....	132	anogenus.....	136
aletes.....	132	atrocaudalis.....	133
altus.....	137	bifrenata.....	135
amarus.....	132	bifrenatus.....	133, 135
chamberlaini.....	132	bivittatus.....	119
euryopa.....	132	blennius.....	133
fluvialis.....	132	boops.....	134
hudsonius.....	132	buchanani.....	134
saludanus.....	132	calientis.....	134
hudsonius, Catostomus.....	106	cayuga.....	133
Hippocampus.....	244	chalybaeus.....	127
Hudsonius.....	132	chiliticus.....	127
humboldti, Cheonda.....	119	chlorocephalus.....	127
Cyclopium.....	159	chrosomus.....	127
Myctophum.....	169	crameri.....	138
Sternopygus.....	101	cummingsi.....	133
Stygogenes.....	159	deliciosa.....	134
Tigoma.....	119	straminea.....	134
humboldtiana, Atherina.....	250	deliciosus.....	134
humboldtianum, Chirostoma.....	250	dorsalis.....	134
humboldtii, Gasteropelecus.....	169	fretensis.....	129
humeralis, Arbacia.....	490	gilberti.....	134
Chaetodon.....	360	gracilis.....	133
Gobiesox.....	490	haematurus.....	145
Harengula.....	43	heterodon.....	136
Julis.....	426	richardsoni.....	136
Leiostomus.....	349	heterolepis.....	134
Oligocephalus.....	293	horatii.....	136
Paralabrax.....	317	jordani.....	136
Searus.....	433	kanawha.....	134
Serranus.....	317	keimi.....	133
humerimaculatus, Sargus.....	338	kendalli.....	135
humile, Pristipoma.....	334	lacertosus.....	129
humilis, Allotis.....	300	longiceps.....	133
Bryttus.....	300	longirostris.....	135
Cottus.....	387	maculata.....	135
Gambusia.....	185	meeki.....	139
Myripristes.....	235	missuriensis.....	133

List of scientific names—Continued

	Page		Page
<i>Hybopsis montanus</i>	139	<i>hyostomus</i> , <i>Nocomis</i>	139
<i>nitida</i>	135	<i>hypacanthus</i> , <i>Pseudonoblenius</i>	465
<i>niveus</i>	129	<i>Hypargyrus</i>	144
<i>nocomis</i>	135	<i>Hypeneus</i>	343
<i>nux</i>	135	<i>Hypentelium</i>	107
<i>ortenburgeri</i>	135	<i>macroplectum</i>	107
<i>ozarcanus</i>	135	<i>macropterus</i>	107
<i>phaenna</i>	132	<i>nigricans</i>	107
<i>phenacobius</i>	134	<i>Hyperchioristus</i>	70
<i>piptolepis</i>	134	<i>tanneri</i>	70
<i>progne</i>	133	<i>Hyperistius</i>	304, 305
<i>rubricroceus</i>	125, 127	<i>carolinensis</i>	305
<i>sabinæ</i>	135	<i>Hyperoartia</i>	8
<i>sevilla</i>	135	<i>Hyperotreta</i>	8
<i>shumardi</i>	134	<i>Hyporhamphus</i>	410
<i>sinus</i>	135	<i>agassizii</i>	410
<i>spectrunculus</i>	134	<i>analis</i>	410
<i>stramineus</i>	134	<i>arcuatum</i>	410
<i>tetrancistrus</i>	130	<i>argenteum</i>	410
<i>timpanogensis</i>	119	<i>punctatum</i>	410
<i>tuditatus</i>	144, 145	<i>argenteus</i>	410
<i>volucella</i>	133	<i>Hypthalonedrus</i>	165
<i>watauga</i>	133	<i>chalybeius</i>	165
<i>winchelli</i>	133	<i>Hypheobrycon</i>	97
<i>xanoecephalus</i>	117	<i>panamensis</i>	97
<i>Hyborhynchus</i>	145	<i>Hypleurochilus</i>	461
<i>confertus</i>	145	<i>geminatus</i>	462
(<i>Hybognathus</i>) <i>siderius</i>	140	<i>Hypocaranx</i>	273
<i>nigrellus</i>	145	<i>Hypocydonia</i>	297
<i>notatus</i>	145	<i>bella</i>	297
<i>perspicuus</i>	145	<i>Hypocritichthys</i>	410
<i>punctatus</i>	145	<i>analis</i>	410
<i>superfasciatus</i>	145	<i>hypodus</i> , <i>Decapterus</i>	270
<i>tenebrosus</i>	145	<i>Hypohomus</i>	284
<i>Hydracra atricauda</i>	174	<i>aurantineus</i>	285
<i>luna</i>	174	<i>cymatotenaria</i>	285
<i>Hydrargyra</i>	175	<i>niangua</i>	285
<i>diaphana</i>	178	<i>spilotus</i>	285
<i>fusca</i>	174	<i>Hypophthalmus</i>	28
<i>luna</i>	174	<i>Hypomesus</i>	67
<i>lunata</i>	178	<i>olidus</i>	68
<i>multifasciata</i>	178	<i>pretiosus</i>	67
<i>nigrofasciata</i>	176	<i>hypoplecta</i> , <i>Rathbunella</i>	452
<i>ornata</i>	176	<i>Hypoplectrus</i>	320
<i>similis</i>	175, 177	<i>aberrans</i>	321
<i>swampina</i>	175	<i>gemma</i>	321
<i>trifasciata</i>	176	<i>lamprurus</i>	321
<i>vernalis</i>	176	<i>maculiferus</i>	321
<i>zebra</i>	179	<i>pinnivaria</i>	321
<i>Hydrolagus</i>	33	<i>unicolor</i>	320, 321
<i>collei</i>	33	<i>aberrans</i>	321
<i>waiteti</i>	33	<i>accensus</i>	321
<i>Hydrophlox</i>	126	<i>affinis</i>	321
<i>abbotti</i>	127	<i>bovinus</i>	321
<i>altipinnis</i>	127	<i>chlorurus</i>	321
<i>chalybeius</i>	127	<i>erosotus</i>	321
<i>chiliticus</i>	127	<i>gemma</i>	321
<i>chlorocephalus</i>	127	<i>guiniguttata</i>	321
<i>chromatus</i>	127	<i>guttatissimus</i>	321
<i>lutipinnis</i>	127	<i>indigo</i>	321
<i>roseus</i>	127	<i>nigricans</i>	321
<i>rubricroceus</i>	127	<i>pinnivarius</i>	321
<i>stonei</i>	127	<i>puella</i>	321
<i>xanoecephalus</i>	127	<i>vitulinus</i>	321
<i>Hydrophlox, Chaetodon</i>	119	<i>hypophthalmus</i> , <i>Bathymaster</i>	151
<i>Clinostomus</i>	119	<i>Hypophthalmus</i>	151
<i>Hygomi, Mycetophum</i>	169	<i>Hypopomus</i>	101
<i>Scopelus</i>	169	<i>brevirostris</i>	101
<i>Hylomyzon</i>	107	<i>occidentalis</i>	101
<i>Hymenocephalus</i>	207	<i>hypophthalmus</i> , <i>Arius</i>	151
<i>maculatus</i>	207	<i>Hypoprion</i>	17
<i>italicus</i>	207	<i>brevirostris</i>	17
<i>Hymys</i>	274	<i>longirostris</i>	17
<i>cutaneous</i>	274	<i>signatus</i>	17
<i>peromyscus</i>	274	<i>Hypoprionodon</i>	17
<i>toponotus</i>	274	<i>hypophthalmus</i> , <i>Cathorops</i>	151
<i>Hyodon</i>	40	<i>hypophthalmus</i> , <i>Arius</i>	151
<i>amphiodon</i>	41	<i>Hyporhamphus</i>	198
<i>chrysops</i>	41	<i>gilli</i>	198
<i>oleorops</i>	41	<i>roberti</i>	198
<i>vernalis</i>	40	<i>rosae</i>	198
<i>Hyostoma</i>	286	<i>snyderi</i>	199
<i>identocroceus</i>	286	<i>tricuspidatus</i>	198
<i>newmani</i>	286	<i>unifasciatus</i>	198
<i>notatum</i>	286	<i>Hyporthodus</i>	310
<i>hyostoma</i> , <i>Macrhybopsis</i>	139	<i>flavicauda</i>	311

List of scientific names—Continued

	Page		Page
Hyposerranus.....	310	Icelus hamatus.....	378
hyposticta, Propterygia.....	24	seutiger.....	378
hypostoma, Mobula.....	32	spatula.....	379
Hypostomus.....	160	spiniger.....	378
brasiliensis.....	160	uncinalis.....	379
cirrhosus.....	160	vicinalis.....	378
guacari.....	160	Ichthocolla.....	33
guacharote.....	161	Ichthyapus.....	84
plecostomus.....	160	Ichthyomyzon.....	9
robinii.....	160	castaneus.....	9
hypostomus, Cephalopterus.....	32	concolor.....	9
Hypsagonus gradiens.....	393	fossor.....	9
swanii.....	396	hirudo.....	9
hypselosoma, Leptocephalichthys.....	79	Ichthyus.....	263
hypselura, Rhamdia.....	157	lockingtoni.....	268
hypselurus, Pimelodus.....	157	icistia, Bairdiella.....	346
hypselopterus, Leuciscus.....	129	Sciæna.....	346
Hypsicometes.....	451	Icosteidae.....	269
gobioides.....	451	Icosteus.....	269
Hypsifario.....	55	enigmaticus.....	269
Hypsilepis.....	128	ictalops, Cottus.....	385
ardens.....	126	Pegedictis.....	385
coccogenis.....	127	Ictalurus.....	151
cornutus cerasinus.....	128	anguilla.....	152
cyaneus.....	128	furcatus.....	151, 152
gibbus.....	128	kevinskii.....	153
galacturus.....	129	macaskeyi.....	153
iris.....	131	meridionalis.....	152
Hypsinotus.....	358	okeechobeensis.....	152
rubescens.....	358	punctatus.....	152
hypsinotus, Ceratichthys.....	138	robustus.....	152
Erinemus.....	138	simpsoni.....	152
Hypsolepis.....	128	Iethelis.....	299
Hypsophrys.....	418	erythrops.....	303
unimaculatus.....	418	megalotis.....	300
Hypsopsetta.....	225	melanops.....	298
guttulata.....	225	ichtheloides, Lepomis.....	303
hypostoma, Mobula.....	32	Ichthyaelurus.....	151
Hypostomus.....	160	Ichthyapus.....	84
plecostomus.....	160	acutirostris.....	84
hypostomus, Cephalopterus.....	32	Ichthyobus.....	102
Hypsagonus.....	393	cyanellus.....	102
gradiens.....	393	rauchi.....	102
quadricornis.....	393	Ichthyophis.....	94
swanii.....	396	vittatus.....	95
hypselura, Rhamdia.....	157	Ietiobus.....	102, 352
Hypsicometes.....	451	bubalis.....	102
gobioides.....	451	urus.....	102
Hypsifario.....	54	Idiacanthidae.....	70
hypsinotus, Erinemus.....	138	Idiacanthus.....	70
Hypsoblennius.....	462	antrostomus.....	70
gentilis.....	462	ferox.....	70
gilberti.....	462	ignobilis, Caranx.....	273
hantz.....	462	Scomber.....	273
ionthas.....	462	Ilictis.....	155
piersoni.....	462	Ilisha.....	44
striatus.....	462	abnormis.....	44
Hypsopsetta.....	225	caribbæa.....	45
guttulata.....	225	illecebrosum, Zestidium.....	347
Hypsurus.....	412	illecebrosus, Alburnops.....	134
caryi.....	412	Stelliferus.....	347
Hypsypops.....	415	illustris, Lampogrammus.....	484
dorsalis.....	415, 416	Ilyophidae.....	78
rubicundus.....	415	Ilyophis.....	78
Hysterochrysurus.....	412	brunneus.....	78
traski.....	412	Ilypnus.....	445
hystrix, Diodon.....	501, 502	gilberti.....	445
		imberbe, Ophiodon.....	467
		Peristedion.....	406
		imberbis, Apogon.....	295
		Mullus.....	295
		Sciæna.....	348
		Vulsiculus.....	406
		imiceps, Ophioscion.....	348
		Sciæna.....	348
		immaculata, Amia.....	40
		Coryphæna.....	264
		Fistularia.....	245
		Percæ.....	307
		immaculatum, Cichlasoma spinosissimum.....	420
		Cybium.....	257
		immaculatus, Archocentrus.....	420
		Esox.....	173
		masquinongy.....	173
		Platyptecilius maculatus.....	193
		Salmo.....	60
		Synbranchus.....	76
Icelidae.....	375		
Icelinus.....	376		
borealis.....	376		
burchami.....	376		
cavifrons.....	375		
filamentosus.....	375		
fimbriatus.....	376		
fuscus.....	376		
oculatus.....	376		
quadriseriatus.....	376		
strabo.....	376		
tenuis.....	376		
Icelus.....	378		
australis.....	379		
bicornis.....	378		
canaliculatus.....	378		
euryops.....	378		
furciger.....	378		

List of scientific names—Continued

	Page		Page
Imostoma.....	285	insigne, Pimelodus.....	155
cheneyi.....	286	insignis, Anoplarchus.....	408
gilberti.....	286	Catostomus.....	105, 106
longimane.....	286	Cheirodon.....	96
meadia.....	286	Pimelodus.....	156
podostemone.....	286	Rabida.....	156
shumardi.....	285	insociabilis, Dorosoma.....	46
imperator, Xiphias.....	264	insolatus, Helias.....	413
imperialis, Coryphaena.....	264	inspector, Bathytroctes.....	52
Esox.....	197	insulae-santae-crucis, Searus.....	434
Lutvaris.....	264	insularum, Atherinops.....	252
Sebastes.....	370	Cedroscensis.....	252
Zeus.....	217	Murena.....	90
impetiginosus, Serranus.....	310	integripinnis, Auchenopterus.....	457
implutus, Tetradon.....	500	Cremnobates.....	457
impressus, Conger.....	80	intermedia, Tigoma.....	119
inaequilobus, Pogonichthys.....	116	intermedius, Cichlaurus.....	416
incilis, Querimana.....	253	Gephyrocharax.....	96
Incislenes.....	339	Heros.....	416
simplicidens.....	359	Paralepis.....	165
incisor, Helioperca.....	301	Pomoxys.....	304
Kypbosus.....	339	Saurus.....	164
Pimelepterus.....	339	Sudis.....	165
Pomotis.....	301	Synodus.....	164
incisus, Lycodes.....	475	internasalis, Julis.....	427
inconstans, Eucalia.....	238	interrupta, Chrysoperca.....	307
Gasterosteus.....	238	Morone.....	307
inconstans cayuga, Eucalia.....	238	Perca mitchilli.....	307
incrassatus, Leucosomus.....	117	Raja.....	26
Indica, Lutolera.....	40	Raja.....	26
indicus, Cottus.....	397	interruptus, Anisotremus.....	332
Tetrapturus.....	263	Archoplites.....	303
indigena, Clupea.....	42	Centrarchus.....	303
indigo, Hypoplectrus unicolor.....	321	Gonytremus.....	332
Plectropoma.....	321	Luxilus.....	128
inermia.....	340	intertextus, Mystriophus.....	88
vittata.....	340	Ophisurus.....	88
inermioides.....	340	interstitialis, Serranus.....	314
inermis, Anoplagonus.....	397	Trisotropis.....	314
Aspidophorodes.....	397	introniger, Dierolene.....	483
Dermatolepis.....	313	Eosebastes.....	366
Elops.....	39	Sebastichthys.....	366
Mesoprion.....	327	intronigra, Dierolene.....	483
Rabirubia.....	327	inurus, Zygonectes.....	185
Raja inornata.....	26	Ioa.....	288
Scorpaena.....	371	vigil.....	288
Serranus.....	313	vitrea.....	288
infans, Avocettina.....	83	Ioglossus.....	438
Gambusia.....	189	calliurus.....	438
Nemichthys.....	83	ionthas, Cerdale.....	473
Pociliopsis.....	189	Hypobiennius.....	462
infernalis, Histiobranchus.....	78	Isesthes.....	462
Murena.....	92	ios, Clevelandia.....	445
infirmis, Novaculichthys.....	430	Gobiosoma.....	445
Xyrichthys.....	430	Iotichthys.....	121
infraspinata, Asterothea.....	396	phlegothemi.....	121
infraspinatus, Xeneretmus.....	396	iowa, Etheostoma.....	291
ingens, Hippocampus.....	224	Oligocephalus.....	291
ingoldi, Macrourus.....	206	Ipnopidae.....	170
inimicus.....	430	Ipnops.....	170
mundicorpus.....	430	agassizi.....	171
pavonius.....	430	murrayi.....	170
Inion.....	193	irideus, Labrus.....	304
Innomadus.....	87	Salmo.....	58
innominatus, Girardichthys.....	182	iridia, Salmo.....	58
innopinatus, Gasterosteus.....	238	iridinus, Caranx.....	271
Inops, Antennarius.....	505	Iridio.....	426
Inopsetta.....	226	bivittata.....	426
ischyra.....	226	caudalis.....	427
inornata, Lota.....	212	cyanocephalus.....	427
Raja.....	26	decoratus.....	427
inornatus, Apodichthys.....	467	depilis.....	427
Cryptocanthodes.....	171	elegans.....	427
Microlepidotus.....	335	frenatus.....	427
Oligolepis.....	277	garnoti.....	427
Pseudojulis.....	428	kirschli.....	427
inscriptum, Nanostoma.....	289	maculipinna.....	427
inscriptum, Aethia.....	229	meyeri.....	427
Nothonotus.....	289	microdon.....	427
Pomotis.....	300	nicholsi.....	428
insculpta, Netuma.....	149	petti.....	427
insculptus, Arius.....	149	poculi.....	427
Ctenolucius.....	100	radiata.....	426
Gasterosteus.....	237	sclifer.....	428
Luciocharax.....	100	semipetiti.....	427
insignarius, Pimelodon.....	155, 156	smithi.....	427

List of scientific names—Continued

	Page		Page
Irillion.....	66	jagua, Histrio.....	505
oregonius.....	66	Jaguacanguare.....	415
iris, Hypsilepis.....	131	jaguar, Bodianus.....	235
Leuciscus.....	117	jalapa, Xiphophorus.....	193
irradians, Serranus.....	319	jamaicensis, Cynoscion.....	355
irregularis, Theraps.....	417	Otolithus.....	355
irretitus, Gordiichthys.....	89	Raja.....	29
Mugil.....	254	janeiro, Engraulis.....	51
irroratus, Monacanthus.....	494	januaria, Umbrina.....	351
irroratus, Monacanthus.....	494	jaok, Cottus.....	387
Isabelita.....	361	Myoxocephalus.....	387
isabelita, Angelichthys.....	361	japonicus, Aretoscopus.....	357
Isaciella.....	335	Caranx trachurus.....	270
ischana, Anchoviella.....	48	Chirolophus.....	466
ischanus, Notemigonus.....	115	Salmo.....	54
Stolephorus.....	48	Scomber.....	258
Ischnomembras.....	247	Trachurus.....	270
gabonensis.....	247	Trichodon.....	357
gabunensis.....	247	jarrovii, Lepidomeda.....	147
ischanus, Notemigonus.....	115	Minomus.....	104
Ischnomembras.....	247	javanicus, Psenes.....	268
ischyra, Inopsetta.....	226	jejuna, Episema.....	125
ischyru, Apomotis.....	299	jejunus, Parantropis.....	125
Lepidopomus.....	299	jemezianus, Alburnellus.....	125
Parophrys.....	225	jeniguanu, Hæmulon.....	331
Isesthes.....	462	jenkinsi, Chasmodes.....	463
gilberti.....	462	Synodus.....	163
ionthas.....	462	Zygonectes.....	178
scrutator.....	462	Jenkinsia.....	45
ishinagi, Megapercia.....	308	lampetraenia.....	46
islandicus, Bogmarus.....	216	stolifera.....	46
Centronotus.....	471	jessiae, Oligocephalus.....	291
Gasterosteus.....	238	Pœcilichthys.....	291
isodon, Aprionodon.....	15	Xyrichthys.....	429
Carcharius.....	15	Xyruia.....	429
Mesoprion.....	326	jocu, Anthias.....	325
isodus, Squalus.....	20	Lutianus.....	325
Isogomphodon.....	15	johannæ, Argyrosomus.....	63
maculipinnis.....	16	Leucichthys.....	63
isolepis, Isopsetta.....	226	johni, Cephaloptera.....	32
Lepidopsetta.....	224	Johnius batubanus.....	345
Luxilus cornutus.....	128	guttatus.....	313
Notropis cornutus.....	128	nobilis.....	356
Sternotremia.....	215	regalis.....	355
Isopisthus.....	353	saxatilis.....	350
affinis.....	343	jonesi, Belone.....	197
harroweri.....	354	Mollienisia.....	188
parvipinnis.....	353	Syngnathus.....	241
remifer.....	353	jonesii, Gerres.....	341
Isoplagiodon.....	15	Pseudoxiphophorus bimaculatus.....	188
Isopsetta.....	226	Jordanella.....	180
isolepis.....	227	floridæ.....	180
Isospondyli.....	39	jordani, Bathymaster.....	452
isthmensis, Ælurichthys.....	148	Caulophryne.....	511
Bagre.....	148	Chirotoma.....	250
Pœciliopsis.....	190	Eopsetta.....	222
Rivulus.....	180	Epinephelus.....	314
Istiophoridae.....	263	Etheostoma (Nothonotus).....	290
Istiophorus.....	263	Galeichthys.....	150
americanus.....	263	Gillias.....	458
greyi.....	263	Gymnothorax.....	92
maguirei.....	263	Hemilepidotus.....	381
volador.....	263	Hippoglossoides.....	222
wrighti.....	263	Hybopsis.....	136
istlana, Parapetenia.....	418	Lampanyctus.....	167
istlanus, Heros.....	418	Lutianus.....	321
istlarius.....	151	Lycodes.....	474
balsanus.....	151	Lycondontis.....	92
Isuropsis.....	19	Neonænis.....	324
dekayi.....	19	Nothonotus.....	290
Isurus.....	19	Notropis.....	136
oxyrinchus.....	19	Pantosteus.....	104
punctatus.....	19	Raia.....	26
spallanzani.....	19	Ronquilus.....	452
tigris.....	19	Salmo.....	57
Itaiara.....	312	clarkii.....	57
itaiara, Promicrop.....	312	Sebastodes.....	364
Serranus.....	312	Tachisurus.....	150
Tristotropis.....	314	Jordana.....	375
Jabeneillo.....	316	zonope.....	375
jacksoni, Embiotoca.....	411	Jordaniidæ.....	375
jacobae, Echeis.....	449	josephi, Ophidium.....	485
jacobi, Corvina (Johnius).....	348	Joturus.....	254
jacobus, Myripristis.....	235	globiceps.....	255
jacome, Serranus.....	319	pichardi.....	254
jaculidens, Ancyodon.....	354	stipes.....	255
jaculus, Alburnellus.....	123		

List of scientific names—Continued

	Page		Page
Juba, Guatucupa.....	332	klunzingeri, Achirus.....	229
Perca.....	332	Solea.....	229
jugalis, Moniana.....	131	kneri, Flistipoma.....	335
Jugulares.....	430	kraussi, Gobius.....	441
julie, Clariola.....	292	Kryptophaneron.....	234
Julidio.....	428	alfredi.....	234
adustus.....	428	Kuhliidæ.....	305
notospilus.....	428	Kuhlia arge.....	305
Julis.....	428	kumlieni, Uranidea.....	385
caudalis.....	427	Kyphosidæ.....	339
cinctus.....	427	Kyphosus.....	339
crotaphus.....	426, 427	analogus.....	339
cyathostigma.....	426	elegans.....	339
detersor.....	429	incisor.....	339
dimidiatus.....	427	lutescens.....	340
garnoti.....	427	metzelaari.....	339
gilliani.....	429	sectatrix.....	340
humeralis.....	426		
internasalis.....	427	labaræ, Chirostoma.....	250
lucasanus.....	429	Labeo elegans.....	109
maculipinna.....	427	labialis, Fundulus.....	174
melanocheir.....	427	Profundulus.....	174
modestus.....	428	labiatum, Heros.....	422
nitida.....	429	labiatus, Amphiprophus.....	422
nitidissima.....	429	Catostomus.....	106
opahna.....	426	Labichthys.....	84
patulus.....	426	bowersi.....	84
pietius.....	427	carinatus.....	84
principis.....	426	elongatus.....	83
ruptus.....	427	gilli.....	83
semicinctus.....	427	Labidesthes.....	251
		sicculus.....	251
kalisheræ, Ericteis.....	460	labrosus, Carpinodes.....	103
kamloops, Onchorhynchus.....	58	labradoricus, Acanthocottus.....	388
kanawha, Hybopsis.....	134	Coregonus.....	64
Notropis.....	134	Labrax.....	373
kanse, Fundulus.....	179	albidus.....	307
Plancterus.....	179	clathratus.....	317
karak, Anarrhichas.....	472	decaagrammus.....	373
Kathetostoma.....	454	lagocephalus.....	374
albigutta.....	454	monopterygius.....	374
averruncus.....	454	multilineatus.....	307
Katsuwonide.....	258	nebulifer.....	317
Katsuwonus.....	258	nigericans.....	308
pelamis.....	258	notatus.....	307
vagans.....	258	octogrammus.....	373, 374
kaupii, Physiculus.....	211	osculatii.....	307
kaupii, Synaphobranchus.....	78	superciliatus.....	374
kayko, Salmo keta vel.....	54	Labridæ.....	424
keimi, Hybopsis.....	133	labridens, Heros.....	419
Notropis.....	133	Parapetenia.....	419
kendallii, Calamus.....	337	labridum, Hemulon.....	332
Hybopsis.....	135	labriformis, Epinephelus.....	311
Sphagebranchus.....	84, 85	Serranus.....	311
Verma.....	85	Labrisomus.....	459
kennedyi, Trachinotus.....	277	biguttatus.....	460
kenneryi, Moxostoma.....	109	bucciferus.....	459
Onchorhynchus.....	55	heilneri.....	459
Salmo.....	55	herminier.....	459
kennicotti, Acipenser.....	34	lentiginosus.....	459
Catanotus.....	293	microlepidotus.....	459
Coregonus.....	65	nuchipinnis.....	459
Prosopium.....	65	xanti.....	459
Kenoza.....	173	Labroperca.....	310
kentuckiensis, Lixia.....	137	Labrosomus bucciferus.....	459
Nocomis.....	137	cremnobates.....	456
kessleri, Arius.....	149	microlepidotus.....	459
Netuma.....	149	labrosus, Ceratichthys.....	138
keta, Onchorhynchus.....	54	Erinemus.....	138
kevinskii, Ictalurus.....	156	Zonaces.....	473
killifish, Cobitis.....	176	Labrus adperoni.....	424
kincaidi, Malacocottus.....	288	americanus.....	424
kirschii, Iridio.....	427	aureatus.....	299
kirtlandi, Acipenser (Huso).....	35, 37	bifasciatus.....	429
Kirtlandia.....	248	torquatus.....	429
kuwata.....	248	bivittatus.....	426
vagrans.....	248	brasiliensis.....	426
kitchi, Onchorhynchus.....	54	carolinus.....	424
Salmo.....	54, 55	chogset.....	424
Labt, Microtomus.....	228	fulva.....	424
Pleuronectes.....	228	eromis.....	352
Lia, Leucichthys.....	61	orientalis.....	322
Klamathensis, Agosia.....	141	cyanocephalus.....	427
Apogon.....	141	exoletus.....	424
Cottus.....	384	fulvus.....	276
kleini, Balte.....	496	fulvo-maculatus.....	335

List of scientific names—Continued

	Page		Page
Labrus fulvus	309	Lagochila lacera	112
gauza.....	310	Lagodon	337
griseus.....	325	rhomboides.....	337
hexagrammus.....	374	lahontan, Pantosteus	105
hiatula.....	424	lalandi, Carcharias	15
frideus.....	304	Scoliodon.....	15
macropterus.....	304	Seriola.....	279
maximus.....	424	lamellifer, Exocoetus	200
onitis.....	424	Lamia	20
ornatus.....	429	lamia, Carcharias	15
palladius.....	299	lamarii, Acipenser	35
pentacanthus.....	424	Lepidosteus.....	37
plumieri.....	330	lamiella, Carcharias	15
psittaculus.....	426	Lamlopsis	15
pulcher.....	426	Lamna	19
radiatus.....	426	caudata.....	16
rufus.....	425	nasus.....	19
salmoides.....	298	punctata.....	19
semiruber.....	425	Lamnidae	19
sparoides.....	305	lamotteni, Okkelbergia	10
squeteague.....	355	Petromyzon.....	10
maculatus.....	355	Lampadena	167
striatus.....	317	speculigera.....	167
subfuscus.....	424	Lampanyctus	167
tassellatus.....	424	alatus.....	167
tautoza.....	424	gemmifer.....	167
versicolor.....	336	güntheri.....	167
lacera, Lagochila	112	lacerta.....	167
lacerta, Lampanyctus	167	ritteri.....	167
Synodus.....	163	Lampetra	10
lacerinus, Synodus	164	ayresi.....	10
lacetosus, Hybopsis	129	borealis.....	10
Luxilus.....	129	spadicea.....	9
lacetus, Gobius	440	wilderi.....	9
Seomber.....	258	lampetraformis, Blennius	470, 471
Lachnolaimus	425	Lumpenus.....	471
Lachnolaimus	425	Lampreda	10
aigula.....	425	Lampridae	216
caninus.....	425	Lampris	216
dux.....	425	lauta.....	217
maximus.....	425	regius.....	216
psittacus.....	425	Lamprogrammus	484
suillus.....	425	illustris.....	484
lachrymalis, Ptychostomus	111	lamprotænia, Clupea	46
lacinata, Meridia vagrans	248	Jenkinsia.....	46
lacinata, Kirtlandia	248	lampurus, Hypoplectrus	321
lacinatus, Searus	432	Serranus.....	321
lactarius, Catostomus (Acomus)	107	Lampugus	264
Lactophrys	497	neopolitanus.....	265
trigonus.....	497	punctulatus.....	265
lacustris, Algansea	116	siculus.....	265
Gadus.....	152, 212	lanatus, Merluccius	214
Haustor.....	152	lanceolata, Perca	352
Hemiplus.....	115	lanceolatus, Chætodon	352, 353
okechebensis, Ameiurus.....	152	Equetus.....	353
Pomolobus pseudoharengus.....	42	Gobius.....	441
Læmaris	21	Homoprion.....	346
Læmonema	213	Lonchirus.....	352
barbatula.....	213	Stellifer.....	346
barbatulum.....	213	lappa, Halieutella	508
gracillipes.....	213	Laproperca	310
melanurum.....	213	Larimus	344
lætabilis, Moniana	131	acclivis.....	344
lætus, Centronotus	468	argenteus.....	344
lævicaudatus, Hippocampus	214	breviceps.....	344
lævigatus, Callichthys	160	effulgens.....	344
Chironectes.....	505	fasciatus.....	344
Lagocephalus.....	497	pacificus.....	344
Salmo.....	61	larkinsi, Cymatogaster	410
Tetraodon.....	497	Lasiancistrus	161
Lævinia	24	planiceps.....	161
lævis, Acipenser	35	Lasognathus	510
Baliste.....	495	saccostoma.....	510
Gasterosteus.....	239	lata, Parapetenia tetracantha	419
Mustelus.....	13	Xurel.....	272
Rapa.....	25	Latebrus	297
Squatina.....	22	oculatus.....	297
variegatus, Orbis.....	499	latepictus, Serranus	314
lagenatus, Acipenser	36	lateralis, Alvarius	294
Lagocephalus	497	Arteidius.....	377
lævigatus.....	497	Characodon.....	183
pachycephalus.....	497	Embiotoca.....	411
lagocephalus, Hexagrammos	374	Gobiomorus.....	436
Labrax.....	374	Mylocheilus.....	112
Salmo.....	54	Philypnus.....	436
Lagochila	112	Richardsonius.....	118

List of scientific names—Continued

	Page		Page
laterals, Scarus	432	leiopomus, Cottus	385
Scorpanichthys	377	leiops, Xeneretmus	396
Taniotoca	411	Xenopyxis	396
Zygonectes	177	Leiostomus	348
laterna, Tetradon	500	humeralis	349
laternatum, Mycetophum	170	lineatus	349
laternatus, Polyipnus	74	zanthurus	349
laterum albo, Antennarius	505	Leiurus	237
lathamii, Trachurus	270	leiurus, Gasterosteus	237
laticauda, Anguilla	77	emarii, Acipenser (Huso)	35
Rhambid	157	Lombus	435
aticaudus, Pimelodus	157	maculatus	435
Scolidon	14	lemmoni, Squalius	119
laticeps, Acanthocottus	388	lemniscatus, Engraulis	48
Etobatus	30	Osmerus	163
Arius	150	Lemnisoma	261
Atherina	246	Lencoraja	24
Bathynectes	483	lentiginosa, Murana	90
Megalocottus	288	lentiginosum, Ostracion	496
Mixonus	483	lentiginosus, Amia	38
latidens, Glaridodon	189	Galeichthys	149
Microstomus	228	Heros	418
Pocillopsis	189	Labrisomus	459
latifasciatus, Cyprinodon	181	Rhinobatus	23
Eleotris	437	Rhinobatus	23
Hemieleotris	437	Tachisurus	149
latifrons, Anarrhichas	472	Theraps	418
Citharichthys	215	leonensis, Oligocephalus	291
Eleotris	436	leonia, Moniana	131
Lycichthys	472	leopardinus, Antennarius	705
Paraliparis	405	Platophrys	218
Stelgidonotus	379	Rhomboidichthys	218
Sycaum	218	leopardus, Anarrhichas	472
Xenochirus	395	Lepidogaster macandrieus	488
Xenopyxis	395	reticulatus	488
Latius chrysops	357	testar	489
princeps	357	Lepidodotus indiens	509
latimaculatus, Ophisurus	85	Lepidema	507
Latimania, Belone	197	chrysops	507
latinasutus, Macrourus	206	epda, Bolesoma	291
Macurus	205	Cyprinella	130
latur, Salmo	64	lepidentostole, Anchova	49
latipinna, Mollienes	182	Anchova	49
latipinnis, Carabotomus	107	Lepidion	211
Zanidolepis	375	Lepidion	211
latipunctata, Gambia	187	verecundum	211
latirostratus, Macrourus	206	Lepidochætodon	359
Macurus	206	lepidogenys, Ethleostoma	292
la lura, Loricaria	162	Nivicola	292
Loricaria filamentosa	162	Lepidogobius	444
atus, Caranx	272	gilberti	445
Euctenogobius	442	lepidus	444
Heros tetraodon	419	Lepidolepis trachyrincus	203
Scomber	276	Lepidolepus norvegicus	205
laura, A. lathieria	421	Lepidomeda	147
Cichlasoma	421	larrovi	147
lauretta, Coregonus	62	vittata	147
leucichthys	62	Lepidomegas	279
laura, Latipis	217	Lepidopsetta	226
Lavina	113	bilineata	226
conformis	120	isolepis	226
crassicauda	120	Lepidopus	562
callicauda	113	caudatus	262
harong	113	elongatus	262
lechi, Clupea	41	gouani	262
lechianus, Thynnus	258	xantusi	262
Lebias ellipsoides	181	Lepidotens	36
rhomboides	181	(Atractosteus) berlandieri	38
Lebistes	191	ayresi	37
pocilloides	191	clintonii	37
reticulatus	191	copei	37
Lebias	374	crassus	36
lebranchus, Mugil	253	elizabeth	37
lecontei, Acipenser	34	grayi	37
leurus, Nannacara	278	harlani	37
leus, Symphurus	231	horatii	37
leuoy, Diaptern	341	lamarii	37
Clamus	341	latirostris	37
Leurogaster	486	leptorhynchus	37
bermudensis	486	lesueurii	37
leurechus, Cyprinodon	355	louisianensis	36
Ophichthys	355	manjuari	38
Leichthys, pleuro	29	milberti	37
Leiocottus	390	otarius	37
harmonia	390	piquotianus	37
Leiodon	21	semiradiatus	36
leionethus, Holbrothius	469	smithi	37

List of scientific names—Continued

	Page		Page
<i>Lepidosteus thompsoni</i>	37	<i>Leptocephalus spallanzani</i>	79
troosti.....	37	<i>leptocephalus, Ceratichthys</i>	137
<i>lepidulus, Alburnus</i>	125	<i>Merlangus</i>	209
<i>lepidus, Gobius</i>	444	<i>Leptocephale</i>	473
<i>Lepidogobius</i>	444	<i>longipinnis</i>	473
<i>Oligocephalus</i>	291	<i>Leptochilichthys</i>	53
<i>Lepiopomus ischyrius</i>	299	<i>agassizii</i>	53
<i>miniatus</i>	300	<i>Leptochnus</i>	470
<i>Lepisoma</i>	459	<i>maculatus</i>	470
<i>cirrhosum</i>	459	<i>Leptoconger</i>	82
<i>Lepisosteidae</i>	36	<i>perlongus</i>	82
<i>Lepisosteus</i>	36	<i>Leptocottus</i>	390
<i>albus</i>	37	<i>armatus</i>	390
(<i>Atractosteus</i>) <i>ferox</i>	38	<i>Leptodes</i>	71
<i>bison</i>	37	<i>Leptofieraster</i>	486
(<i>Cylindrosteus</i>) <i>oculatus</i>	37	<i>macrurus</i>	486
<i>gavialis</i>	36	<i>Leptogunneilus</i>	470
<i>huronusis</i>	36	<i>gracilis</i>	470
<i>lineatus</i>	37	<i>Leptolucania</i>	174
<i>longirostris</i>	36	<i>ommata</i>	175
<i>osseus</i>	36	<i>Leptophidium cervinum</i>	484
<i>oxyurus</i>	37	<i>emmelas</i>	484
<i>platostomus</i>	37	<i>marmoratum</i>	484
<i>semiradiatus</i>	36	<i>microlepis</i>	485
<i>spatula</i>	38	<i>pardale</i>	485
<i>Lepodus</i>	265	<i>profundorum</i>	484
<i>saragus</i>	265	<i>prorates</i>	484
<i>Lepomis</i>	299	<i>stigmatistium</i>	485
<i>anacallinus</i>	300	<i>Leptophilypnus</i>	436
<i>apiatus</i>	299	<i>fluvialilis</i>	436
<i>appendix</i>	299	<i>Leptops</i>	155
<i>ardesiacus</i>	301	<i>Leptopus</i>	215
<i>auritus</i>	299	<i>peregrinus</i>	215
<i>charybdis</i>	303	<i>Leptorhaphis</i>	189
<i>cyanelus</i>	298	<i>Leptorhinophis</i>	87
<i>curvatus</i>	299	<i>Leptorhynchus</i>	83
<i>flexularis</i>	298	<i>leuchtenbergii</i>	83
<i>garmani</i>	300	<i>leptorhynchus, Lepidosteus</i>	37
<i>gillii</i>	303	<i>Odontopyxis</i>	395
<i>haplognathus</i>	301	<i>Sarritor</i>	395
<i>ichtheloides</i>	303	<i>Syngnathus</i>	240
<i>lirus</i>	302	<i>Leptoscarus</i>	431
<i>longispinis</i>	301	<i>xenodon</i>	431
<i>macrochirus</i>	301	<i>leptosomus, Luxilus</i>	115
<i>miniatus</i>	300	<i>Lepturus</i>	262
<i>mystacalis</i>	300	<i>lepturus, Anarrhichas</i>	472
<i>nepheus</i>	301	<i>Caranx</i>	272
<i>notata</i>	298	<i>Macrourus</i>	207
<i>occidentalis</i>	301	<i>Trichiurus</i>	232
<i>opthalmicus</i>	299	<i>Iermæ, Aztecula</i>	143
<i>pallida</i>	298	<i>Chirostoma</i>	251
<i>pallidus</i>	299	<i>Notropis</i>	143
<i>peltastes</i>	300	<i>Skillia</i>	183
<i>purpurascens</i>	301	<i>Lermichthys</i>	183
<i>salmona</i>	298	<i>multiradiatus</i>	183
<i>solis</i>	300	<i>les Alutères</i>	495
<i>symmetricus</i>	299	<i>Curimates</i>	100
<i>trifasciata</i>	298	<i>Lottes</i>	212
<i>Leptophidium</i>	484	<i>Musteles</i>	208
<i>brevibarbe</i>	484	<i>Ovoides</i>	499
<i>cervinum</i>	484	<i>Spheroides</i>	498
<i>emmelas</i>	484	<i>Steliferes</i>	346
<i>marmoratum</i>	484	<i>lessonii, Coryphaena</i>	265
<i>microlepis</i>	485	<i>Lestidiops</i>	166
<i>pardale</i>	485	<i>sphyxanops</i>	166
<i>profundorum</i>	484	<i>lesueurii, Acipenser</i>	34
<i>prorates</i>	484	<i>Catostomus</i>	111
<i>stigmatistium</i>	485	<i>Moxostoma</i>	111
<i>leptacantha, Rabida</i>	155	<i>lesueurianum, Exoglossum</i>	146
<i>leptacanthus, Noturus</i>	155	<i>lesueurii, Lepidosteus</i>	37
<i>Leptagonus</i>	394	<i>Letharchus</i>	85
<i>decazon</i>	394	<i>paeficus</i>	85
<i>Leptarius</i>	148	<i>velifer</i>	85
<i>dowii</i>	148	<i>Lethenteron</i>	9
<i>Leptecheneis</i>	448	<i>appendix</i>	9
<i>Leptoancistrus</i>	161	<i>Lethops</i>	447
<i>canescens</i>	161	<i>connectens</i>	447
<i>Leptoblennius</i>	470	<i>lethostigma, Paralichthys</i>	224
<i>Leptocephali</i>	7	<i>lethostigmus, Paralichthys</i>	224
<i>Leptocephalicthys</i>	79	<i>Lethostole</i>	250
<i>Leptocephalidae</i>	79	<i>Lethotremus</i>	398
<i>Leptocephalus</i>	54, 79	<i>muticus</i>	398
<i>candidissimus</i>	79	<i>vinolentus</i>	398
<i>gracilis</i>	79	<i>lethrinus, Astatheros</i>	420
(<i>Microconger</i>) <i>caudalis</i>	81	<i>Cichlasoma</i>	420
<i>morrisi</i>	54, 79	<i>letonai, Priapichthys</i>	190

List of scientific names—Continued

	Page		Page
leuchtenbergii, Belonopsis	83	leucopsarum, Myctophum (Stenobranchius)	168
Leptorhynchus	83	Nanobranchium	168
Leucichthys	61	leucopus, Photogenis	130
alascanus	62	Rhamphoberyx	235
alpene	63	leucorhinus, Rhynchoceratias	511
artedi	63	leucorhynchus, Rhinobatos	24
bisselli	63	Rhinobatus	24
athabasca	62	leucurus, Eupomacentrus	414
birgei	64	Pomacentrus	414
cyanopterus	63	Leucosomus	116, 117
entomophagus	63	cataractus	117
erianis	63	corporalis	117
gemmifer	63	dissimilis	137
harengus	62	incrassatus	117
hoyi	64	occidentalis	113
johanne	63	pallidus	117
kiyi	63	rhotheus	117
lauretta	62	leucosteus, Calamus	337
lucidus	62	leucostictus, Eupomacentrus	413
macrognaathus	62	Pomacentrus	413
maniboulinus	64	leucotania, Pholidichthys	465
nigripinnis	63	leucurus, Caranx	271
nipigon	64	Hemicaranx	271
ontariensis	62	Leucus dimidiatus	122
osmeriformis	62	olivaceus	122
prognathus	63	Leuresthes	251
pusillus	62	cramerii	251
reighardi	63	tenuis	251
sisco	62	Leuroglossus	68
huroni	62	stilbius	68
supernas	63	Leurynnis	474
tullibee	64	paucidens	474
zenithicus	64	levis, Hispanicus	368
Leucicortus	483	Sebastichthys	368
lusciosus	483	lewini, Zygaena	18
Leucidius	123	lewis, Squatina	22
pectinifer	123	lewisi, Salar	56, 56
leuciodus, Notropis	124	Silmo	56
Photogenis	124	liberiensis, Balistes	492
Leuciscus	117, 119	libertate, Meletta	44
argenteus	117	Opisthonema	44
boseli	117	Lichia kiebia	277
boucardi	132	lightfooti, Alphestes	313
bubalinus	130	Epinephelus	313
burtonianus	121	ligulata, Seriola	280
carletoni	116	Lilja barbuda	496
caurinus	112, 118	colorado	494
chrysopterus	117	Lile	44
copii	120	stolifera	44
craesus	110	lima, Holotrachys	235
evermanni	118	Hydrargira	174
frontalis	128	Loricaria	162
gardoneus	115	Myripristis	235
gilli	118	Rineloricaria	162
gracilis	128	Lima-murana	90
hypselopterus	129	melanotis	90
iris	117	Limanda	226
longirostris	120	aspera	227
lutrensis	131	beanii	227
macrolepidotus	116	ferruginea	227
nachtriebi	116	proboscidea	227
nasutus	139	limanda, Pleuronectes	222
nitidus	117	limandoides, Pleuronectes	222
obesus	128	limbatus, Carcharias	16
productus	120	Carcharias (Prionodon)	16
prolixus	146	Conger	78
pulchelloides	117	Oxydactylus	88
pulchellus	117	limi, Fundulus	178
pygmaeus	171	Umbrina	174
rotengulus	117	Zygonectes	178
siallawi	118	Limia	191
spirlingulus	128	arnoldi	191
storeri	117	caudofasciata	191
tinella	115	couchiana	193
vandoisulus	121	cubensis	191
vittatus	128	dominicensis	191
zunnensis	114	formosa	192
(Leuciscus) caurinus, Cyprinus	118	heterandria	191
oregonensis, Cyprinus	114	matamorenensis	192
leuciscus, Brachydeuterus	333	melanonotata	191
Pristipoma	333	nigrofasciata	191
leucophaeus, Macrourus	205	ornata	191
Macrurus	205	pavonina	191
leucops, Photogenis	123	perugie	191
engraulinus, Photogenis	123	pœclloides	192

List of scientific names—Continued

	Page		Page
<i>Limia venusta</i>	175	<i>Liopsetta obscura</i>	228
<i>versicolor</i>	191	<i>putnami</i>	227
<i>vittata</i>	191	<i>liorus</i> , <i>Chasmistes</i>	108
<i>Limnurgus</i>	182	<i>liosternus</i> , <i>Phenacobius teretulus</i>	142
<i>variegatus</i>	182	<i>Liostomus</i>	348
<i>limnurgus</i> , <i>Girardinichthys</i>	183	<i>Liparidae</i>	399
<i>limosa</i> , <i>Myxine</i>	8	<i>liparina</i> , <i>Amitra</i>	405
<i>Pilodictis</i>	155	<i>liparinus</i> , <i>Paraliparis</i>	405
<i>limosus</i> , <i>Pylodictis</i>	155	<i>Liparis</i>	399
<i>linea</i> , <i>Mesoprion</i>	325	<i>agassizii</i>	400
<i>Syngnathus</i>	241	<i>arctica</i>	400
<i>lineata</i> , <i>Alosa</i>	42	<i>cyclopus</i>	400
<i>Coryphæna</i>	430	<i>cyclostigma</i>	401
<i>Echeneis</i>	449	<i>denneyi</i>	400
<i>Embiotoca</i>	411	<i>fabricii</i>	400
<i>Sciæna</i>	307	<i>fucensis</i>	400
<i>Tigoma</i>	119	<i>gibbus</i>	400
<i>lineatus</i> , <i>Achirus</i>	230	<i>herschelinus</i>	400
<i>Ambiodon</i>	352	<i>liparis</i>	400
<i>Cyclopterus</i>	400	<i>megacephalus</i>	400
<i>Cypselurus</i>	202	<i>montagui</i>	399
<i>Diodon geometricus</i>	502	<i>mucosus</i>	399
<i>Dormitator</i>	436	<i>osborni</i>	400
<i>Doryichthys</i>	243	<i>pulchellus</i>	400
<i>Eques</i>	353	<i>ranula</i>	402
<i>Esox</i>	173	<i>reinhardi</i>	402
<i>Eugerres</i>	342	<i>tunicata</i>	400
<i>Euthynnus</i>	259	<i>liparis</i> , <i>Centrolophus</i>	267
<i>Exocoetus</i>	202	<i>Cyclopterus</i>	399, 400
<i>Genyomemus</i>	349	<i>Liparis</i>	400
<i>Gobius</i>	440, 446	<i>major</i> , <i>Cyclopterus</i>	401
<i>Grystes</i>	374	<i>minor</i> , <i>Cyclopterus</i>	400
<i>Leiostomus</i>	349	<i>Lipariscus</i>	401
<i>Lepisosteus</i>	37	<i>nanus</i>	401
<i>Micropogon</i>	349	<i>Liparopidae</i>	398
<i>Mugil</i>	253	<i>Liparops</i>	398
<i>Pleuronectes</i>	230	<i>stelleri</i>	398
<i>Smaris</i>	342	<i>Lipogenyidae</i>	75
<i>Sternopygus</i>	101	<i>Lipogenys</i>	75
<i>Trichodon</i>	357	<i>gillii</i>	75
<i>Zygonectes</i>	177	<i>Lipomyzon</i>	108
<i>lineis transversis</i> , <i>Passer</i>	230	<i>Lipophrys</i>	461
<i>lineolata</i> , <i>Clupea</i>	41	<i>carolinus</i>	461
<i>Pelamys</i>	259	<i>liropus</i> , <i>Arius</i>	151
<i>Poecilia</i>	192	<i>Tachysurus</i>	151
<i>Sarda</i>	259	<i>lirus</i> , <i>Lepomis</i>	302
<i>lineolatum</i> , <i>Catnotus flabellare</i>	293	<i>Lythurus</i>	126
<i>lineolatus</i> , <i>Alburnus</i>	135	<i>Nototropis</i>	126
<i>Catnotus</i>	293	<i>lisa</i> , <i>Menidia</i>	249
<i>Metrogaster</i>	409	<i>Xenatherina</i>	249
<i>Pseudoscarus</i>	434	<i>lister</i> , <i>Ostracion</i>	497
<i>Tetrodon</i>	497	<i>lita</i> , <i>Murena</i>	93
<i>Zygonectes</i>	178	<i>Litholepis</i>	38
<i>lineopinnis</i> , <i>Muraena</i>	92	<i>littoralis</i> , <i>Odontaspis</i>	19
<i>lineopunctatus</i> , <i>Balistes</i>	493	<i>Squalus</i>	19
<i>Xanthichthys</i>	493	<i>Umbrina</i>	351
<i>linguacula</i> , <i>Balistes</i>	496	<i>Umbrula</i>	351
<i>Pleuronectes</i>	222	<i>littoricola</i> , <i>Chaetodon</i>	360
<i>linnei</i> , <i>Egglefinus</i>	211	<i>liturosus</i> , <i>Diodon</i>	501
<i>Trachurus</i>	270	<i>lividus</i> , <i>Petromyzon</i>	10
<i>linophora</i>	359	<i>Silurus</i>	153
<i>linophryne</i>	510	<i>livree</i> , <i>Pimelode</i>	156
<i>arborifer</i>	510	<i>liza</i> , <i>Mugil</i>	253
<i>lucifer</i>	510	<i>lobatus</i> , <i>Canthogaster</i>	498
<i>macrodon</i>	510	<i>Sphaeroides</i>	498
<i>polypogon</i>	510	<i>lobochilus</i> , <i>Amphilophus</i>	422
<i>linsleyi</i> , <i>Etheostoma</i>	293	<i>Heros</i>	422
<i>Lioglossina</i>	223	<i>Lobotes</i>	323
<i>tetropthalma</i>	223	<i>auctorum</i>	323
<i>tetropthalmus</i>	223	<i>emarginatus</i>	325
<i>lilepis</i> , <i>Lionurus</i>	207	<i>erata</i>	323
<i>Macrusus</i> (<i>Lionurus</i>).....	207	<i>pacificus</i>	324
<i>Xystreus</i>	223	<i>somnolentus</i>	323
<i>Liomonacanthus</i>	493	<i>surinamensis</i>	323
<i>Lioniscus</i>	34	<i>Lobotidae</i>	323
<i>Lionurus</i>	207	<i>lockingtoni</i> , <i>leichthys</i>	268
<i>liolepis</i>	207	<i>Lonchiurus</i>	352
<i>(Lionurus) liolepis</i> , <i>Macrusus</i>	207	<i>depressus</i>	352
<i>liopeltis</i> , <i>Acipenser</i>	35	<i>lunceolatus</i>	352
<i>Lioperca</i>	313	<i>Lorchopisthus</i>	453
<i>Liopropoma</i>	316	<i>micrognathus</i>	453
<i>aberrans</i>	316	<i>lonchurum</i> , <i>Opisthognathus</i>	453
<i>longilepis</i>	316	<i>Lonchurus</i>	352
<i>rubra</i>	315	<i>anceylodon</i>	354
<i>Liopsetta</i>	227	<i>lonchurus</i> , <i>Opisthognathus</i>	453
<i>glacialis</i>	227	<i>longa</i> , <i>Trygon</i>	28

List of scientific names—Continued

	Page		Page
longicauda, <i>Muraena</i>	91	Lophopsetta.....	217
Rabula.....	91	maculata.....	217
longicaudus, <i>Gobius</i>	441	Lophotes.....	215
longicephalus, <i>Galeichthys</i>	150	capellei.....	215
Tachisurus.....	150	copelanus.....	215
longiceps, <i>Chenophrine</i>	710	Lophotidae.....	215
Eleotris.....	445	lordii, <i>Salmo</i>	61
Hybopsis.....	133	loreto, <i>Gramma</i>	322
Porogadus.....	182	Loricaria.....	161
longidens, <i>Caulolepis</i>	233	acuta.....	161
longifiliis, <i>Gadomus</i>	202	altipinnis.....	162
longifilus, <i>Bathygadus</i>	202	aurca.....	162
Careproctus.....	493	barbata.....	161
longilepis, <i>Lipropoma</i>	316	bransfordi.....	162
longimana, <i>Etheostoma</i>	286	capetensis.....	162
longimane, <i>Imostoma</i>	286	filamentosa latiora.....	162
longimanus, <i>Astatheros</i>	420	fimbriata.....	162
Eupomotis.....	302	flava.....	160
Heros.....	420	frenata.....	162
Squalus.....	15	latiora.....	162
Nyctophilus.....	302	lima.....	162
longipes, <i>Bregmaceros</i>	208	pamunensis.....	162
Gadus.....	213	placostomus.....	160
Physiculus.....	212	rostrata.....	161, 162
longipinne, <i>Gobiosoma</i>	145	striatata.....	162
Holocentrum.....	245	tuyrensis.....	162
longipinnis, <i>Careproctus</i>	405	uraeantha.....	162
Clevelandia.....	445	variegata.....	161
Evermannia.....	445	Loricichthys.....	161
Leptocentrus.....	473	Loricifera.....	160
Stenotomus.....	208	loricaria, <i>Alysi</i>	160
longirostris, <i>Alburnus</i>	135	loricatus, <i>Gasterosteus</i>	237
Chaetodon.....	359	Macroganathus.....	36
Esox.....	196	Phalangistes.....	394
Euleptorhamphus.....	198	lorito, <i>Sparisoma</i>	432
Forcipiger.....	330	Loro.....	431, 435
Hemirhamphus.....	198	Lota.....	212
Hybopsis.....	145	translucida.....	212
Hypoprius.....	17	merista.....	212
Lepidotus.....	39	maculosa.....	212
Loricatus.....	120	Labella.....	211
Lumpenella.....	471	braxillaris.....	211
Lumpenus.....	471	lotharingus, <i>Gasterosteus</i>	239
Saurus.....	163	labium, <i>Perc</i>	305
longirostrum, <i>Cyprinostomus</i>	106	laetitia, <i>Engraulis</i>	48
longispinus, <i>Parastomus</i>	405	longianus, <i>Notropis</i>	124
longispinus, <i>Parastomus</i>	405	Synbranchius.....	242
longispinus, <i>Achirochthys</i>	148	Synbranchius.....	242
Lepomis.....	301	longianus, <i>Lepidosteus</i>	36
Pomoxis.....	372	lowei, <i>Polymixia</i>	234
longulus, <i>Pomoxis</i>	399	lowii, <i>Oreochromis</i>	171
longum, <i>Goniistius</i>	446	loxus, <i>Gymnarchus</i>	406
longurio, <i>Carcharias</i>	15	Prionotus.....	406
Scoliodon.....	15	Lucania.....	175, 182
longus, <i>Balistes</i>	493	affinis.....	175
Dasyatis.....	28	browni.....	181
Ophichthus.....	87	goodii.....	175
lophar, <i>Perc</i>	280	parva.....	175
Lophar.....	280	lucania, <i>Sphar</i>	255
mediterraneus.....	280	lucania, <i>Thalassoma</i>	429
Lophidae.....	504	lucania, <i>Lulu</i>	429
Lophidion.....	504	lucania, <i>Ceratostomus</i>	382
retigerus.....	504	lucania, <i>Asymmetron</i>	7
Lophus.....	504	lucania, <i>Ceratichthys</i>	137
aculeatus.....	507	Dacotus.....	412
americanus.....	504	lucania, <i>Vinciguerra</i>	73
bullo.....	487	lucania, <i>Maurodon</i>	73
gibbus.....	505	lucania, <i>Hydrargyra</i>	178
hispidus.....	505	Zygocetes.....	178
parvulus.....	504	lucania, <i>Aethropora</i>	168
retigerus.....	507	Anelovilla.....	48
spectum.....	505	lucania, <i>Loricichthys</i>	62
tubidus.....	504	Luxilus.....	125
versipellis.....	507	Salmo (<i>Caregonus</i>).....	62
viviparus.....	504	stolephorus.....	48
Lophus, <i>Amia</i>	153	Lucifer.....	70
harator.....	153	lucifer, <i>Linophryne</i>	510
Lopholacina.....	240	Lucifuga.....	479
Lophodolus.....	509	denticulatus.....	479
acanthognathus.....	509	subterraneus.....	479
Lophogobius.....	438	Luciolepidion.....	465
cyprioides.....	438	alepidotus.....	465
Lopholatilus chamaleonticeps.....	357	lucius.....	465
Lopholatilus.....	357	lucioceps, <i>Saurus</i>	163

List of scientific names—Continued

	Page		Page
lucioceps, <i>Synodus</i>	163	Lutianus analis.....	326
Luciocharax.....	100	apodus.....	325, 326
insculptus.....	100	argentiventris.....	326
striatus.....	100	aya.....	326
Lucioperca americana.....	282	blackfordii.....	326
borea.....	282	brachypterus.....	326
canadensis.....	282	buccanella.....	326
grisea.....	282	campechanus.....	326
pepinus.....	282	colorado.....	326
lucioperca undecimalis, <i>Centropomus</i>	305	cyanopterus.....	325
luciopercanus, <i>Mentiperca</i>	319	griseus.....	325, 326
serranus.....	319	guttatus.....	326
Lucius.....	172	hastingsi.....	326
lucius americanus, <i>Esox</i>	173	joelii.....	325
lucius, <i>Atractosteus</i>	38	jordani.....	324
Chænopsis.....	465	luteus.....	335
Chirostoma.....	251	lutianus.....	324
Lucioblennius.....	465	lutjanoides.....	326
Ptychocheilus.....	114	mahogoni.....	327
lucoides, <i>Esox</i>	173	megalophthalmus.....	327
lucetia, <i>Aboma</i>	443	novemfasciatus.....	325
Gobius.....	443	synagris.....	326, 327
ludibunda, <i>Cyprinella</i>	130	viridis.....	324
luetkeni, <i>Dolopichthys</i>	510	vivanus.....	326
lugubris, <i>Caranx</i>	273	lutianus, <i>Lutianus</i>	324
Cyprinella.....	131	lutipinnis, <i>Hydrophlox</i>	127
Esox.....	173	Pristigaster.....	45
Malacoctenus.....	460	lutjanoides, <i>Lutianus</i>	326
Melamphaes.....	233	Ocyurus.....	326
Myxodes.....	460	Lutjanus.....	324
Plectromus.....	233	acutirostris.....	325
Xurel.....	273	aubrieti.....	327
luitpoldi, <i>Characodon</i>	184	blackfordi.....	326
Goodea.....	184	brachypterus.....	326
lumbrius, <i>Muraena</i>	76	cayanensis.....	354
Myrophis.....	83	colorado.....	326
luminosum, <i>Myctophum</i>	170	cubera.....	325
Lumpenella.....	471	dentatus.....	325
longirostris.....	471	lumulatus.....	311
Lumpenida.....	470	novemfasciatus.....	325
Lumpenus.....	470	prieto.....	325
fabricii.....	471	purpureus.....	326
gracilis.....	470	stearnsi.....	325
lampetraeformis.....	471	surinamensis.....	332
longirostris.....	471	torridus.....	326
mackayi.....	471	triangulum.....	348
nubilis.....	471	tridens.....	318
Lumpus.....	397	trilobatus.....	317
anglorum.....	398	verres.....	425
vulgaris.....	398	lutkeni, <i>Cypselurus</i>	201
lumpus, <i>Cyclopterus</i>	397	Exocoetus.....	201
luna, <i>Pomotis</i>	301	Lutodeira.....	40
Zeus.....	216	lutrensis, <i>Leuciscus</i>	131
lunaris, <i>Orthogoriscus</i>	503	Moniana.....	131
unata, <i>Centropyge</i>	361	lutzi, <i>Heterandria</i>	190
Echeneis.....	448	Luvardiæ.....	264
Solea.....	217	Luvarifformes.....	264
lunaticus, <i>Dactyloscopus</i>	455	Luvarus.....	264
lunatus, <i>Holocanthus</i>	361	imperialis.....	264
Platyphrys.....	217	luxatus, <i>Chasmistes</i>	108
Pleuronectes.....	217	Deltistes.....	108
Rhinichthys.....	140	Luxilius.....	113
lumulatus, <i>Cynias</i>	13	luxiloides, <i>Cyprinella</i>	131
Lutjanus.....	310	Luxilus.....	125, 128
Mustelus.....	13	albeolus.....	129
lupus, <i>Anarhichas</i>	472	cerasinus.....	128
Haustor.....	153	chickasawensis.....	130
Pimelodus.....	153	chrysocephalus.....	128
Lurca, <i>Cyclothone</i>	72	cornutus.....	128
lusciosus, <i>Leucicorus</i>	483	chrysocephalus.....	128
lutea, <i>Anguilla</i>	77	isolepis.....	128
luteovinctum, <i>Etheostoma</i>	291	dissimilis.....	138
luteovinctus, <i>Oligocephalus</i>	291	elongatus.....	120
lutescens, <i>Chatodon</i>	360	erythrogaster.....	113
Kyphosus.....	340	interruptus.....	128
Pimlepterus.....	340	kentuckiensis.....	137
luteum, <i>Hæmulon</i>	330	lacertosus.....	129
luteus, <i>Centropomus</i>	281	leptosomus.....	115
Gadus tomcodus.....	210	lucidus.....	125
Genyatremus.....	335	roseus.....	127
Lutianus.....	335	seco.....	115
Noturus.....	155	selene.....	132
Rhinichthys.....	139	zonistius.....	128
Lutianide.....	324	lycaodon, <i>Salmo</i>	55
Lutianus.....	324	Lycenchelys.....	475
ambiguus.....	327	paxillus.....	476

List of scientific names—Continued

	Page		Page
<i>Lycenchelys porifer</i>	476	<i>Lyosphæra</i>	503
<i>verrilli</i>	475	<i>globosa</i>	503
<i>Lycengraulis</i>	51	<i>gricus</i> , <i>Gobionellus</i>	441
<i>grossidens</i>	51	<i>Gobius</i>	441
<i>poei</i>	51	<i>lysinnus</i> , <i>Bryolophus</i>	463
<i>Lynchnopeles</i>	72	<i>lythrochloris</i> , <i>Xenotis</i>	300
<i>argenteolus</i>	73	<i>Lythrulon</i>	331
<i>lychnus</i> , <i>Argyropelecus</i>	74	<i>flaviguttatum</i>	331
<i>Lycias</i>	475	<i>opalescens</i>	331
<i>nebulosus</i>	475	<i>Lythrurus</i>	125
<i>seminudus</i>	475	<i>ardens</i>	126
<i>Lycichthys</i>	472	<i>atripes</i>	126
<i>latrifrons</i>	472	<i>bellus</i>	126
<i>minor</i>	472	<i>cyanocephalus</i>	126
<i>Lycocara</i>	478	<i>fasciolaris</i>	126
<i>parrii</i>	478	<i>lirus</i>	126
<i>Lycodalepis</i>	476	<i>matutinus</i>	126
<i>mucosus</i>	476	<i>notropis</i>	126
<i>polaris</i>	476	<i>punctulatus</i>	126
<i>Lycodapodidae</i>	478	<i>roseipinnis</i>	126
<i>Lycodapus</i>	478	<i>umbratilis</i>	125
<i>attenuatus</i>	479	<i>Lythrypnus</i>	442
<i>dermatinus</i>	478	<i>dalli</i>	442
<i>extensus</i>	478		
<i>fierasfer</i>	478	<i>Macabi</i>	40
<i>grossidens</i>	479	<i>macarellus</i> , <i>Caranx</i>	270
<i>lycodon</i>	478	<i>Decapterus</i>	270
<i>mandibularis</i>	479	<i>mackayi</i> , <i>Isalurus</i>	153
<i>parviceps</i>	478	<i>macellindii</i> , <i>Bregmaceros</i>	208
<i>Lycodes</i>	474	<i>macellii</i> , <i>Acutonantem</i>	366
<i>anguis</i>	475	<i>Cerootis</i>	127
<i>brevipes</i>	475	<i>Cotacoma</i>	53
<i>caudifrons</i>	474	<i>Cynoscion</i>	356
<i>coccineus</i>	476	<i>Eriston</i>	356
<i>coloratus</i>	476	<i>Nannobrachium</i>	168
<i>diapterus</i>	476	<i>Notropis</i>	127
<i>digitatus</i>	475	<i>Petropus</i>	483
<i>esmarkii</i>	474	<i>Salmo</i>	57
<i>frigidus</i>	474	<i>mykiss</i>	57
<i>gracilis</i>	475	<i>Zygonectes</i>	177
<i>incisus</i>	475	<i>Macellindii</i>	76
<i>jordani</i>	474	<i>macellus</i> , <i>Prionistius</i>	380
(<i>Lycodopsis</i>) <i>pacificus</i>	474	<i>macer</i> , <i>Polyprosopus</i>	20
<i>mucosus</i>	476	<i>mackayi</i> , <i>Lumpenus</i>	471
<i>nebulosus</i>	475	<i>Siphostoma</i>	241
<i>palearis</i>	475	<i>Syngnathus</i>	241
<i>paxilloides</i>	476	<i>mackenzii</i> , <i>Salmo</i>	61
<i>paxillus</i>	476	<i>Stenodus</i>	61
<i>percaudum</i>	474	<i>macloti</i> , <i>Caracharias</i>	17
<i>porifer</i>	476	<i>maclura</i> , <i>Itala</i>	29
<i>reticulatus</i>	474	<i>macouni</i> , <i>Chauliodus</i>	71
<i>serpens</i>	475	<i>Pterygocottus</i>	380
<i>terra-nova</i>	474	<i>macracanthum</i> , <i>Pristipoma</i>	334
<i>turneri</i>	476	<i>macracanthus</i> , <i>Alutarius</i>	496
<i>validus</i>	474	<i>Pomadasyss</i>	334
<i>verrilli</i>	475	<i>Macrhybopsis</i>	138
<i>zoarchus</i>	475	<i>astratus</i>	138
<i>lycodon</i> , <i>Lycodapus</i>	478	<i>gelida</i>	139
<i>Lycodontis albimentis</i>	93	<i>hyostoma</i>	139
<i>Lycodontus</i>	476	<i>marconis</i>	138
<i>mirabilis</i>	476	<i>meeki</i>	139
<i>Lycodopsis</i>	474	<i>montana</i>	139
<i>crassilabris</i>	474	<i>sterletus</i>	139
<i>crocalinus</i>	473	<i>macrocephala</i> , <i>Clupea</i>	40
<i>prodon</i>	474	<i>Muraena</i>	77
<i>aurum</i>	474	<i>macrocephalum</i> , <i>Etheostoma</i>	284
<i>Lycogrammus</i>	476	<i>macrocephalus</i> , <i>Alvordius</i>	284
<i>brunneus</i>	476	<i>Clinus</i>	455
<i>Lycodontis</i>	91	<i>Gadus</i>	210
<i>jordani</i>	92	<i>Gomoccephali</i>	409
<i>Lycosteus</i>	471	<i>Mimerpe</i>	455
<i>dentatus</i>	471	<i>Sebastes</i>	372
<i>Lycosoma</i>	476	<i>Semotilus</i>	117
<i>barbatum</i>	476	<i>macrocerus</i> , <i>Monacanthus</i>	494
<i>lynx</i> , <i>Phaeoichthys</i>	153	<i>macrocheilus</i> , <i>Catostomus</i>	166
<i>Lycotriton</i>	510	<i>macrochir</i> , <i>Aldrovandia</i>	75
<i>auratus</i>	611	<i>Halosaurus</i>	75
<i>lydepsus</i> , <i>Anchoanella</i>	49	<i>Sebastes</i>	364
<i>telephorus</i>	49	<i>macrochira</i> , <i>Helioperca</i>	301
<i>lyolipus</i>	300	<i>macrochirus</i> , <i>Hemiramphus</i>	199
<i>palebellus</i>	300	<i>Lepomis</i>	301
<i>lycomeri</i>	95	<i>Macrodon</i>	49, 364
<i>lyopoma</i>	74	<i>amara</i>	49
<i>lyopoma</i>	222	<i>ancylodon</i>	364
<i>jordanianus</i>	222	<i>auratus</i>	49

List of scientific names—Continued

	Page		Page
Macrodon ferox.....	99	Macrostoma.....	166
microlepis.....	99	angustidens.....	166
mordax.....	354	castaneum.....	167
putana.....	99	margaritiferum.....	166
tereira.....	99	quercinum.....	166
teres.....	99	macrostoma, Cyprinella.....	131
trahira.....	99	Hæmulon.....	329
macrodon, Cheilodipterus.....	296	macrostomum, Hæmulon.....	329
Erythrurus.....	99	Macrostomus.....	166
Linophryne.....	510	macrostomus, Accipenser.....	35
Macrodonophis.....	88	Macrouridae.....	202
mordax ophiurus.....	88	Macrourus.....	204, 205
macrodus, Squalus.....	19	albatrossus.....	206
macrogenis, Cerna.....	315	anguliceps.....	206
macrogathum, Opistognathus.....	452	baroi.....	205
Macrogathus.....	245	barbiger.....	205
brevirostris.....	199	berglax.....	205
loricatus.....	36	boops.....	205
macrogathus, Leucichthys.....	62	bucephalus.....	205
macrolepidota, Anchovia.....	50	bulbiceps.....	205
Cobitis.....	176	canus.....	206
macrolepidotum, Moxostoma.....	111	car. ito.....	205
macrolepidotus, Catostomus.....	111	carminifer.....	206
Engraulis.....	50	cinereus.....	205
Fundulus heteroclitus.....	176	convergens.....	206
Leuciscus.....	116	cuspidatus.....	206
Notropis.....	125	fragilis.....	206
Pogonichthys.....	116	gracilicauda.....	206
Macrolepis.....	295	ingolfi.....	206
macrolepis, Phenagoniates.....	95	latinasutus.....	206
Pontinus.....	372	latirostratus.....	206
Reboides.....	95	lepturus.....	207
macronema, Pimelodus.....	159	leucophaeus.....	205
macronemus, Polynemus.....	256	(Malacocephalus) pectoralis.....	204
macrophthalmus, Astyanax.....	97	orbitalis.....	206
Caranx.....	271	pectoralis.....	204
Centropomus.....	328	stegidolepis.....	205
Epigonus.....	296	tenuicauda.....	206
Gobiesox.....	489	trichurus.....	206
Hypentelium.....	107	(Macrourus) stegidolepis, Macrourus.....	205
macroptoma, Bollmannia.....	443	macrourus, Alopias.....	18
Centropomus.....	318	Gymnotus.....	101
Diplectrum.....	318	Macrozoarces.....	473
Macrops.....	328	americanus.....	473
macrops, Balistes.....	492	macrourus, Ophisoma.....	80
Bathygadus.....	203	Macrourus.....	205
Calamus.....	337	acrolepis.....	203
Citharichthys.....	219	anguliceps.....	206
Conger.....	79	asper.....	203
Corvina.....	345	barbiger.....	205
Cottus.....	384	boops.....	205
Gnathypops.....	453	bucephalus.....	205
Hippoglossina.....	222, 223	bulbiceps.....	205
Opisthognathus.....	453	canus.....	206
Opisthoproctus.....	45	capito.....	205
Pristigaster.....	45	caribbeus.....	207
Vagocottus.....	345	carminatus.....	207
macroptera, Conocara.....	53	carminifer.....	206
Goniobatis.....	30	cinereus.....	205
macropterus, Hypentelium.....	107	(Ceolorhynchus) scaphopsis.....	207
macropterus, Alepocephalus.....	53	convergens.....	206
Balistes.....	493	cuspidatus.....	206
Centrarchus.....	304	dorsalis.....	207
Labrus.....	304	firmisquamus.....	204
Thynnus.....	260	fragilis.....	206
macrophthalmus, Astyanax.....	97	goodii.....	203
Centropomus.....	328	gracilicauda.....	206
Dormitator.....	436	ingolfi.....	206
Gobiesox.....	489	latinasutus.....	203
Harengula.....	43	latirostratus.....	206
Priacanthus.....	322	leucophaeus.....	205
Pristigaster.....	328	(Lionurus) liolepis.....	207
Scorpaenidae.....	258	longifilis.....	203
Tetraodon.....	97	(Macrourus) stegidolepis.....	205
macropterna, Clupea.....	43	(Nematonurus) magnus.....	204
macroptus, Malacoctenus.....	460	oceana.....	207
Myxodes.....	460	orbitalis.....	206
Macropterygion.....	245	suborbitalis.....	203
Macropterygion.....	245	tenuicauda.....	206
macrurus, Leptocottus.....	486	trichurus.....	206
Monacanthus.....	493	villosus.....	207
Macropterygion hawaiiensis.....	246	macrurus, Anago.....	80
scelopax.....	246	Gymnotus.....	101
macrostomus, Accipenser.....	34	Oxydontichthys.....	88
macrospila, Piramutana.....	159	Oxydontichthys.....	87

List of scientific names—Continued

	Page		Page
macularius baileyi, Cyprinodon	181	maculosus, Serpens marinus	87
maculatus, Cyprinodon	181	Serranus	311
maculata, Belone	197	madeirensis, Ceratoscopelus	167
Etheostoma	290	Pseudomurana	91
Hemitremia	135	Scopelus	167
Hybopsis	135	maderaspatisensis, Priacanthichthys	310
Lophopsetta	217	maderensis, Helicolenus	370
Morone	302	maendricus, Cantharus	488
Nerophis	213	Lepadogaster	488
nigra, Murana	91	Mrenida	340
nigra et viridis, Murana	92	magasema, Geophagus	424
Perca	310	magdalena, Curimata	100
Sciæna	436	Curimatus	100
maculiceps, Boleosoma	287	Otolithus	356
maculatofasciatus, Paralabrax	317	Paralichthys	223
Serranus	317	magistralis, Epimula	261
maculato striatus, Diodon	502	magnioculus, Ophichthus	88
maculatum, Aulostomus	245	scytalophis	87, 88
Boleosoma	287	magnus, Macurus (Nematomurus)	204
maculatus, Alivordius	283	mahogoni, Lutjanus	327
Anarrhichas	472	Mesoprion	327
Apogon	295	mainensis, Gasterosteus	239
Aulostomus	245	Pungitius	239
Balistes	493	majalis, Cobitis	176
Canthidermis	493	Fundulus	175, 176
Cirrhitus	358	major, Actinochir	401
Clinus	470	Blepharis	274
Cogrus	87	Cyclopterus liparis	401
Cottus	586	Gallichthys	274
Cryptacanthodes	471	Ptychocheilus	114
Diodon	501	Makaira	263
Dormitator	436	ampla	263
Galeus	14	holei	263
Gasteropelecus	99	marlina	263
Hadropterus	283	mazara	263
immaculatus, Platypocilus	193	mitsukurii	263
Labrus squeteague	355	nigricans	263
Lembus	435	makua, Ranzania	504
Leptoclinus	470	malabarica, Elacate	281
Monoprius	295	malabaricus, Esox	99
Mullus	343	Hoplias	99
Nothonotus	290	Synodus	99
Notorynchus	11	Malacanthidae	356
Pimelodus	151, 152, 158, 159	Malacanthus	356
Platypocilus	193	plumieri	356
Pleuronectes	217	Malacocephalus occidentalis	204
Protonotus	36	Malacocephalus	388
Rhynchus	316, 317	lanceolatus	388
Rypicus	316	zonitrus	388
Scomber	257	Malacocephalus	459
Scomberomorus	257, 258	bicinctatus	460
Serranus	311	bimaculatus	460
Sphæroides	498	culebra	460
Tetodon hispidus var.	498	dealandi	460
Upeneus	343	gilli	460
Zoogoneticus	182	lingularis	460
maculicauda, Astatheros	421	macropus	460
Cichlosoma	421	maori	460
Orthostæchus	331	ocellatus	459
maculifer, Diodon	501	puertoricensis	460
Platophrys	217	varius	459
maculiferus, Hypoplectrus	321	varicolor	460
Pleuronectes	217	Malacostichus	71
maculipinna, Iridio	427	Malacostichus	71
Julis	427	niger	71
maculipinnis, Exocoetus	201	malarmat, Peristedion	405
Heros	422	maliger, Pteropodus	369
Isogomphodon	16	Sebastichthys	369
Monacanthus	399	malipinnatus, Monacanthus	480
Thyrsoidea	42	malios, Zygaena	18
maculocinctus, S. bathypterus	399	Malotus	66
maculosa, Heterostichus	15	villous	66
Lola	212	(Malotus) pacificus, Salmo	66
Murana	87	matma, Salmo	61
Thalassophryne	488	Salvelinus	61
maculopunctatus, Clupea	573	spectabilis, Salvelinus	61
maculosa, Heterostichus	324	Matthaea	506
maculosa, Acanthopagrus	267	truncata	507
Aspicer	35	Matthe	506
Cabotomus	167	caribbea	507
Centarchus	303	clater	507
Gadus	212	Malthœa nasuta	507
Nomeus	268	notata	507
Oligocottus	320	Malthœa	507
Paralichthys	223	pinna	507
Pinnipedia	145	pinna	507
		managuense, Parapetennia	418

List of scientific names—Continued

	Page		Page
managuensis, Heros	418	marina, Pastinaca	29
Pimelodus	157	Perca	363
Rhamdia	157	rubra, Perca	236
manatia, Raia	32	sectatrix, Perca	340
manatinus, Barathrodemus	482	Strongylura	196
Mancalias	508	Vulpecula	18
shufeldti	508	marinus, Diabolus	32
uranoscopus	508	dorsatus, Petromyzon	9
mandibularis, Lycodapus	479	Esox	196
manglicola, Gobius	439	lere quadratus, Faber	358
Rhinogobius	439	Gasterosteus	239
mango, Polynemus	256	maculosus, Serpens	87
manitou, Percina	283	Mugilops	252
manitoulinus, Leucichthys	64	Petromyzon	8
manjuari, Lepidosteus	38	Sebastes	363
manni, Gambusia	186	Silurus	148
mannii, Zygonectes	174	marki, Emblemaria	465
Manta	32	marlina, Makaira	263
americana	32	marinorata, Amia	38
birostris	32	Pteroplatea	29
hamiltoni	32	Ulea	393
manta, Cephaloptera	32	Unibranchapertura	76
Cephalopterus	32	marmoratum, Corallicola	456
Mapo	440	Lepophidium	481
mapo, Gobius	440	Leptophidium	484
maraldi, Gadella	211	marmoratus, Amelurus	154
Gadus	211	Cottus	387
marcgravi, Aulostome	245	Cremnobates	456
Coryphæna	264	Gobiesox	488
Rhinobatus	23	Hemitripterus	382, 393
Salmo	100	Pimelodus	154
marconis, Hybopsis æstivalis	138	Rhinichthys	139
Macrhybopsis	138	Rivulus	179
Margariscus	116	Scorpanichthys	382
margarita	116	Sphaeroides	498
nachtiebi	116	Synbranchus	76
margarita, Clinostomus	116	Tetradon	498
Echiostoma	70	Tirus	163
Margariscus	116	marmorea, Rabula	91
margaritaceus, Entomacrodus	463	marmoreus, Blennius	461
Salarias	463	Muraenophis	91
margaritatum, Myctophum	169	Syngnathus	241
margaritatus, Batrachus	487	marshi, Characidium	100
Porichthys	487	marstoni, Salmo	61
Tropidichthys	500	Salvelinus	61
margaritifera, Astatheros	421	marie, Cyprinodon	181
Heros	421	martii, Pristigaster	45
Serranus	311	martinica, Atherina	248
margaritifera, Hæmulon	331	Spicara	340
Apodon	339	martinicensis, Aeus	243
Macrostoma	166	Aylopon	320
margaritifera, Notoscopelus	166	Menticirrhus	351
margaritum, Echiostoma	70	Nerophis	243
margarotis, Enneacanthus	304	Novaculichthys	430
marginalis, Epinephelus	310	Ocyanthias	323
Hippocampus	244	Umbrina	351
marginata, Aphoristia	231	Vomer	275
Helioperca	301	Xyrichtys	430
Rissola	485	martinicus, Gobius	442
Uranidea	381	Membras	248
marginatum, Ophidium	485	Smaris	340
marginatus, Abudedefduf	415	Upeneus	343
Bodianus	313	mas, Salmo	56
Brosmus	479	Mascolongus	172
Brosmophycis	479	maschalespilos, Searus	433
Caranx	272	Sparisoma	433
Chaetodon	415	mascoia, Moxostoma	110
Cottus	384	masoni, Salmo	58
Heliasas	413	masquinongy, Esox	172
Hemicaranx	271	immaculatus, Esox	173
Neobythites	481	ohiensis, Esox	172
Noturus	156	massachusettsensis, Monacanthus	494
Phycis	212, 213	massiliensis, Polyprion	308
Pimelodus	152	Scorpaena	308
Pomoti	301	Masticeira	28
Serranus	311	matamorensis, Limia	192
Symphurus	231	matejuelo, Amphiprion	235
Xurel	272	mathematicus, Tetradon	497
marianum, Holocentrum	236	mattowacca, Clupea	42
marianus, Flammeo	236	matutinus, Alburnellus	126
marina, Bagre	148	Lythrurus	126
capite striato, Perca	330	mauriceii, Argyrius	275
cauda forcipata, Brama	265	mauritii, Chaetodon	415
cauda nigra, Perca	330	Eleotris	268
gibbosa cinerea, Perca	329	Grammistes	332
Mugilops	252	Mauroliscia	73

List of scientific names—Continued

	Page		Page
Maurolleus	73	megacephalus, Cyclogaster	400
amrthystino punctatus	73	Liparis	400
attenuatus	73	Megaderia	94
lucetinus	73	megalaspis, Acipenser (Huso)	35
oculatus	73	Doratonotus	429
pennanti	73	Megalobrycon	98
tripunctulatus	73	Megalocottus	387
maxillaris, Lotella	211	laticeps	388
Muranoides	468	platycephalus	388
Maxillingua	146	megalodon, Pristis	23
maxillingua, Cyprinus	146	Megalonema punctatum	159
Exoglossum	146	robustum	159
maxillosa, Gnathypops	453	Megapera	308
maxillosus, Opisthognathus	453	Megalopidae	39
Rhinichthys	139	Megalops atlanticus	39
maximus, Cetorhinus	20	cepediana	46
Hippoglossus	221	elongatus	39
Labrus	425	notata	44
Lachnolaimus	425	oglina	44
Squalus	20	megalops albeolus, Notropis	129
maxinkuckiensis, Alvordius	284	megalops, Alburnus	125
Hadropterus	284	Clupea	42
mayeri, Mayerina	81	Cylindrosteus	37
Mayerina	81	Cyprinus	128
mayeri	81	Eumichthys	410
Maynea	476	Holomonis	410
brunnea	476	Micropogon	349
bulbiceps	477	Opsopæodus	115
californica	477	Paranotrops	125
patagonica	476	Pimelodus	152
pusilla	477	Trychærodon	115
mazara, Makaira	263	megalophthalmus, Lutianus	327
Tetrapturus	263	Neomænis	327
mazatlanana, Seriola	279	megalotis, Ichelis	300
Solea	230	Xenotis	300
mazatlanum, Hamulon	331	Megapera	308
mazatlanus, Achirus	230	ishinagi	308
Zemichthys	279	Megapichthys	488
meadei, Gambusia	188	megastoma, Opisthognathus	452
meadia, Imastomus	286	Megastomatobus	102
Ulocentrus	286	cyprinella	102
meadii, Rissotinus	378	megastomus, Catostomus	107
mearnsi, Hesperoleucus	122	Meladerma	281
Notropis	122	nigerrima	281
Medi	147	Melamphe's beani	233
fulgida	147	bispinosus	233
media, Palometa	267	cristiceps	233
Mechaluna	18	lugubris	233
californica	18	nycterinus	233
medianna, Ancistrus	161	Melampheidae	232
medians, Ancistrus	161	melampodus, Apogonichthys	296
Melidae	147	melampertus, Salmo	55
melioera, Clupea	41, 42	melampygus, Caranx	272
Pomolobus	42	Xurel	272
mediorum, Antennarius puncto	505	Melanichthys	338
Medipellona	45	Melaniris	248
medirostris, Acipenser	34	balsanus	248, 249
mediterranea, Chimera	32	sardina	249
Sauridia	163	Melanobranchius	203
mediterraneus, Enchelyopus	208	melanobranchius, Bathygadus	203
Hoplostethus	234	melanocephalus, Plargyrus	145
Lopharis	280	Melanocentrus	510
Scomber	250	Melanocettus	510
Sternoptyx	74	johnsoni	510
medius, Anisarchus	470	(Liocetus) murrayi	511
Calamus	367	niger	510
Centropomus	306	polioptis	510
Clinus	470	melanocheir, Julius	429
Grammateus	337	Stellifer	347
Stromateus	267	Zostis	347
medius, Myoxocephalus	387	melanochira, Belone	196
medusicola, Caranx	272	melanogaster, Pleuronectes	224
Xurel	272	Pœcilia	191
medusophagus, Schedophilus	268	Melanogrammus	210
meeki, Cichlasoma	416	agelinus	211
Cichlauris	416	melanopogon, Heros	421
Eucinostomus	301	melanopoma, Polynemus	256
Fundulus	178	melanops, Calliurus	302, 303
Holocentrus	236	Catostomus	109
Hypoclinemus	139	Dioda	144
Maethysbicus	139	Haplachilus	185
Microgobius	444	Ichelis	298
Thynnus	249	Minytrema	109
Chama	341	Sebastes	364
megacephalus, Calamus	336	Sebastes	365
Chitonichthys	375	Sebastosomus	365

List of scientific names—Continued

	Page		Page
melanopsis, Diodon	501	menidia, Atherina	247
melanoptera, Alepes	271	Menidia	247
melanopterum, Pristipoma	332	menisorrah, Carcharias	15
melanopterus, Balistes	493	Carcharinus	16
melanopus, Arius	150	Menona	178
melanorhina, Plectropoma	321	menona, Fundulus	178
Melanorhinus	249	Zygonectes diaphanus	178
bocki	249	mentalis, Platypœcilus	192
melanospilum, Diagramma	332	Menticirrhus	350
melanostictus, Psettichthys	222	americanus	350
Melanostigma	478	martinicensis	351
gelatinosum	478	nasus	351
pammelas	478	panamensis	351
melanostomus, Eosebastes	366	saxatilis	350
Galeus	12	simus	351
Sebastodes	366	undulatus	350
melanotata, Limia	191	Mentiperca	319
melanothos, Holocanthus	497	luciopercanus	319
melanotis, Limamurena	90	mento, Balistes	493
Murena	90	Bramopsis	410
Pseudojulis	428	Chlorophthalmus	165
Scarus	432	Exocoetus	200
melanopterum, Pristipoma	332	Heros	419
melanotus, Catostomus	137	Mustelus	13
melanozonus, Acanthopacelus	191	Paraliparis	404
Melanura	174	Parapetenia	419
annulata	174	mentzeli, Chironectes	505
melanura, Perca	330	mentzeli, Chironectes	506
Pœcilia	178	Serranus	311
melanurum, Hemulon	330	meridionalis, Amiurus	152
Laemonea	213	Aphia	246
melanurus, Careproctus	402, 403	Carpiodes	104
Cichlaurus	416	Cottus	385
Cyprinus	128	Ictalurus	152
Exocoetus	201	Sclerognathus	104
Heros	416	Merlinthe	372
Rutilus	110	nematophthalma	372
melanzonus, Acanthopacelus	191	Merlangus	214
melapleura, Gambusia	185	leptocephalus	209
Pœcilia	185	polaris	209
melapleurus, Zygonectes	178	productus	214
melas, Ameiurus	154	merlangus, Anoplopoma	373
Silurus	154	Merluccius	214
melastomus, Pristurus	13	ambiguus	214
melastomus, Galeus	13	augustinianus	214
meleagris, Murena	93	bilinearis	214
Rhinichthys	140	merluccius	214
Melella cærulea	43	productus	214
libertate	44	smiridus	214
petenensis	47	merluccius, Gadus	214
sueurii	42	Merluccius	214
venosa	42	Merlucciæ	214
Melichthys	493	Merluccius esculentus	214
bispinosus	493	lanatus	214
piceus	493	Merlus	214
radula	493	gayi	214
Melletes	380	merlus, Gadus	214
papilio	380	merou, Holocentrus	310
Memarchus	101	Merriamella	237
Membras	248	dorysia	237
beani	248	merriami, Empetrichthys	182
martineus	248	mertensii, Cottus	387
membras, Clupea	41	Merulinus	406
Menephorus	309	carolinus	407
dubius	309	roseus	407
punctiferus	309	salmonicolor	407
menhaden, Alosa	44	scitulus	407
Clupea	41	Merus	310
Menidia	48, 247	merus, Centropristis	312
audens	247	mesæum, Boleosoma	287
beryllina	247	mesæus, Pœcilichthys	287
cærea	247	mesogaster, Exocoetus	200
charesi	249	Parexocoetus	200
clata	247	Mesogonistius	303
concholum	247	chaetodon	303
dentex	247	Mesoprius	324
gilberti	248	ambiguus	327
lisa	249	analis	326
menidia	247	aratus	327
notata	247	argentiventris	326
peninsule	247	arnillo	328
atrimentis	247	aurovittatus	327
sardina	247	bucanella	326
starksi	247	campechanus	326
vagrans laevis	248	caudanotatus	326

List of scientific names—Continued

	Page		Page
<i>Mesopriocyanopterus</i>	325	<i>microdon</i> , Cheonda.....	118
<i>cynodon</i>	325	<i>Cyclothone</i>	72
<i>elegans</i>	325	<i>Gobionellus</i>	441
<i>flavescens</i>	325	<i>Gobius</i>	441
<i>griseus</i>	325	<i>Gonostoma</i>	72
<i>guttatus</i>	326	<i>Osmerus</i>	66
<i>inermis</i>	327	<i>Pseudotriakis</i>	12
<i>isodon</i>	326	<i>Richardsonius</i>	118
<i>linea</i>	325	<i>Microdontophis</i>	87
<i>litura</i>	325	<i>altipinnis</i>	87
<i>mahogoni</i>	327	<i>Microeleotris</i>	437
<i>oajano</i>	327	<i>mindii</i>	437
<i>pacificus</i>	325	<i>panamensis</i>	437
<i>pargus</i>	325	<i>Microgadus</i>	210
<i>pomacanthus</i>	324	<i>proximus</i>	210
<i>profundus</i>	326	<i>tomcod</i>	210
<i>retrospinis</i>	324	<i>micrognathus</i> , <i>Lonchopisthus</i>	453
<i>ricardi</i>	327	<i>Opisthognathus</i>	453
<i>rosaceus</i>	328	<i>Microgobius</i>	443
<i>sobra</i>	326	<i>cyclolepis</i>	443
<i>uninotatus</i>	327	<i>emblematicus</i>	443
<i>vivianus</i>	326	<i>eulepis</i>	444
<i>vorax</i>	328	<i>gulosus</i>	443
<i>Mesops</i>	424	<i>meeki</i>	444
<i>Mesopus</i>	67	<i>mirallorensis</i>	444
<i>mesotrema</i> , <i>Asternotrema</i>	215	<i>signatus</i>	443
<i>messieri</i> , <i>Sirembo</i>	480	<i>thalassinus</i>	444
<i>messinensis</i> , <i>Gymnocephalus</i>	267	<i>microlepidota</i> , <i>Gila</i>	112
<i>metallica</i> , <i>Agosia</i>	140	<i>Microlepidium</i>	211
<i>Echeosis</i>	449	<i>grandiceps</i>	211
<i>metallicus</i> , <i>Girardinus</i>	189	<i>Microlepidotus</i>	335
<i>Notropis</i>	124	<i>brevipinnis</i>	335
<i>Metaponops cooperi</i>	218	<i>inornatus</i>	335
<i>Metonops</i>	218	<i>microlepidotus</i> , <i>Cynoscion</i>	355
<i>cooperi</i>	218	<i>Labrisomus</i>	459
<i>metopias</i> , <i>Triglops</i>	380	<i>Orthodon</i>	112
<i>metopoclamus</i> , <i>Scopelus</i>	168	<i>Otolithus</i>	355
<i>Microgaster</i>	409	<i>microlepis</i> , <i>Antimora</i>	211
<i>lineolatus</i>	409	<i>Epierytus</i>	98
<i>Metzelaaria</i>	370	<i>Hoplias</i>	99
<i>tridecemspinosus</i>	370	<i>Lepophidium</i>	485
<i>metzelaari</i> , <i>Evermannichthys</i>	447	<i>Leptophidium</i>	485
<i>Kyphosus</i>	330	<i>Macrodon</i>	99
<i>metzi</i> , <i>Gibbonsia</i>	458	<i>Trisotropis</i>	314
<i>meuleni</i> , <i>Diodon</i>	502	<i>microlepis</i> , <i>Bathytroctes</i>	52
<i>mexicana</i> , <i>Aztecula</i>	143	<i>microleptes</i> , <i>Arphricton</i>	309
<i>campi</i> , <i>Signalosa</i>	47	<i>microlophus</i> , <i>Dolopichthys</i>	509
<i>Pamphers</i>	323	<i>Pomotis</i>	302
<i>Præclia</i>	192	<i>Micromesurus</i>	31
<i>Signalosa</i>	47	<i>Micrometrus</i>	409
<i>mexicanum</i> , <i>Myctophum</i>	168	<i>minimus</i>	409
<i>Nannobranchium</i>	168	<i>miconemus</i> , <i>Peristedion</i>	406
<i>mexicanus</i> , <i>Amblyopsis</i>	448	<i>Micropora</i>	282, 294
<i>Astyanax</i>	96	<i>procellariis</i>	294
<i>Auchenopteris</i>	457	<i>proliaris</i>	294
<i>Centropomus</i>	306	<i>punctulata</i>	294
<i>Chatoissus</i>	47	<i>micropora</i> , <i>Etheostoma</i>	294
<i>Chonophorurus</i>	442	<i>microphthalmum</i> , <i>Hemulon</i>	320
<i>Eugerres</i>	343	<i>Micropogon</i>	349
<i>Gerres</i>	343	<i>altipinnis</i>	349
<i>Gobius</i>	442	<i>argenteus</i>	349
<i>Mugil</i>	253	<i>ectenes</i>	349
<i>Pempheris</i>	323	<i>furnieri</i>	349
<i>Saurus</i>	163	<i>lineatus</i>	349
<i>Tetragonopterus</i>	96	<i>megalops</i>	349
<i>meyeri</i> , <i>Iridio</i>	427	<i>trifilis</i>	349
<i>mezquital</i> , <i>Chirostoma</i>	250	<i>undulatus</i>	349
<i>miananthus</i> , <i>Arteidiellus</i>	378	<i>micropogon</i> , <i>Ceratichthys</i>	137
<i>miarchus</i> , <i>Anchoviella</i>	47	<i>Nocomis</i>	137
<i>Stoleporus</i>	47	<i>Micropogonias</i>	349
<i>micraspidophorus</i> , <i>Cyclogaster</i> (<i>Neoliparis</i>).....	399	<i>microps</i> , <i>Agonostoma</i>	254
<i>Neoliparis</i>	399	<i>Atherina</i>	246
<i>(Micristius)</i> <i>brachypterus</i> , <i>Zygonectes</i>	185	<i>Belone</i>	196
<i>Micristodus</i>	18	<i>Callurus</i>	299
<i>punctatus</i>	18	<i>Callyodon</i>	435
<i>microcephalus</i> , <i>Erythrurus</i>	99	<i>Carcharias</i>	16
<i>Gasterosteus</i>	237	<i>Caulobatus</i>	357
<i>williamsoni</i>	237	<i>Catostomus</i>	106
<i>Pleuronectes</i>	228	<i>Corvina</i>	346
<i>Somniosus</i>	22	<i>Cottunculus</i>	392
<i>Squalus</i>	21, 22	<i>Dajaus</i>	254
<i>Microconger</i>	81	<i>Nebria</i>	354
<i>caudalis</i>	81	<i>Otolithus</i>	356
<i>(Microconger)</i> <i>caudalis</i> , <i>Leptocephalus</i>	81	<i>Pagellus</i>	330, 337
<i>Microdesmus</i>	472	<i>Pseudoscarus</i>	435
<i>dipus</i>	472	<i>Stellifer</i>	346
<i>retropinnis</i>	472	<i>Strongylura</i>	196

List of scientific names—Continued

	Page		Page
microptera, <i>Evolantia</i>	199	miniatus, <i>Sclerotis</i>	300
<i>Rhamdia</i>	157	<i>Sebastichthys</i>	365
<i>Micropterus</i>	297, 298	<i>Zoogoneticus</i>	182
<i>dolomieu</i>	298	<i>Miniellus</i>	133
<i>pseudoplites</i>	298	<i>minima</i> , <i>Capricus</i>	496
<i>pseudotites</i>	298	<i>Cichla</i>	298
<i>salmoides</i>	297	<i>Clupea</i>	41
<i>micropterus</i> , <i>Etheostoma</i>	200	<i>Perca</i>	287
<i>Exocoetis</i>	199	<i>minimus</i> , <i>Cymatogaster</i>	409
<i>Pinelodus</i>	157	<i>Micrometrus</i>	409
<i>Micropteryx</i>	276, 279	<i>miniofrenatus</i> , <i>Scarus</i>	432
<i>cosmopolita</i>	276	<i>Minnilus</i>	123
<i>micropteryx</i> , <i>Notropis</i>	124	<i>bellus</i>	126
<i>Alburnellus</i>	124	<i>dinemus</i>	123
<i>Platysomus</i>	275	<i>microstomus</i>	133, 134
<i>microphthalmum</i> , <i>Hæmulon</i>	329	<i>notatus</i>	145
<i>microphthalmus</i> , <i>Cichlaurus</i>	416	<i>nigripinnis</i>	125
<i>Dormitator</i>	436	<i>punctulatus</i>	126
<i>Heros</i>	416	<i>scepticus</i>	123
<i>Tetrabanchus</i>	76	<i>xenurus</i>	130
<i>Tetragonopterus</i>	96	<i>Minomus</i>	105
<i>micropus</i> , <i>Clupea</i>	46	<i>bardus</i>	104
<i>Etrumeus</i>	46	<i>delphinus</i>	104
<i>Gasterosteus</i>	238	<i>jarrovi</i>	104
<i>microrhynchus</i> , <i>Acipenser</i>	34	<i>platyrhynchus</i>	104
<i>microrrhinos</i> , <i>Pseudoscarus</i>	435	<i>minor</i> , <i>Anarrhichas</i>	472
<i>micros</i> , <i>Citharichthys</i>	219	<i>Aphanopus</i>	262
<i>Etropus</i>	219	<i>Couchia</i>	208
<i>Microspathodon</i>	415	<i>Cyclopterus</i> <i>paris</i>	400
<i>azurissimus</i>	416	<i>Lycichthys</i>	472
<i>cinereus</i>	416	<i>Umbra</i>	255
<i>microstigmus</i> , <i>Myrophis</i>	83	<i>minutillus</i> , <i>Chriolepis</i>	438
<i>Microstoma</i>	228	<i>minutus</i> , <i>Cyclopterus</i>	397
<i>microstoma</i> , <i>Crenilabrus</i>	424	<i>Hemigrammus</i>	97
<i>Atherina</i>	246	<i>Minytrema</i>	109
<i>Scartella</i>	461	<i>melanops</i>	109
<i>Uranidea</i>	385	<i>minytremus</i> , <i>Gyrinichthys</i>	403
<i>Microstomidae</i>	68	<i>mirabile</i> , <i>Exoglossum</i>	142
<i>Microstomus</i>	228	<i>mirabilio</i> , <i>Chimara</i>	33
<i>grœnlandica</i>	68	<i>mirabilis</i> , <i>Clupea</i>	41
<i>kitt</i>	228	<i>Crystallichthys</i>	401
<i>latidens</i>	228	<i>Gillichthys</i>	444
<i>pacificus</i>	228	<i>Lycodonus</i>	476
<i>microstomus</i> , <i>Blennius</i>	461	<i>Phenacobius</i>	142
<i>Carpodes</i>	104	<i>miraflorensis</i> , <i>Microgobius</i>	444
<i>Citharichthys</i>	219	<i>mirum</i> , <i>Calloptilum</i>	208
<i>Conger</i>	80	<i>mispliliensis</i> , <i>Ameiurus</i>	154
<i>Etropus</i>	219	<i>mississippiensis</i> , <i>Morone</i>	307
<i>Iridio</i>	427	<i>Pristis</i>	23
<i>Minnilus</i>	133, 134	<i>missuriensis</i> , <i>Ilybopsis</i>	133
<i>Pleuronectes</i>	228	<i>mitchilli</i> , <i>Acanthocottus</i>	386
<i>microtrachys</i> , <i>Raja</i>	25	<i>Acipenser</i>	34
<i>micrura</i> , <i>Pteroplatea</i>	29	<i>alteruata</i> , <i>Perca</i>	307
<i>Raja</i>	29	<i>Anchoviella</i>	48
<i>micurum</i> , <i>Syacium</i>	218	<i>Argyrius</i>	275
<i>milberti</i> , <i>Acipenser</i>	34	<i>Cottus</i>	386
<i>Arius</i>	149	<i>Engraulis</i>	48
<i>Carcharias</i>	16	<i>interrupta</i> , <i>Perca</i>	307
(<i>Prionodon</i>).....	16	<i>Perca</i>	307
<i>Lepidosteus</i>	37	<i>Stolephorus</i>	48
<i>milbertianus</i> , <i>Syngnathus</i>	242	<i>Mitchillina</i>	52
<i>miles</i> , <i>Porogadus</i>	482	<i>bairdii</i>	52
<i>pectoralis</i> , <i>Prionotus</i>	407	<i>mitrulus</i> , <i>Hesperoleucus</i>	122
<i>milesi</i> , <i>Pimphales</i>	145	<i>mitsukurii</i> , <i>Makaira</i>	263
<i>miliaris</i> , <i>Gymnothorax</i>	92	<i>Tetrapturus</i>	263
<i>Thrysoidea</i>	92	<i>miura</i> , <i>Rabida</i>	156
<i>militaris</i> , <i>Bellator</i>	403	<i>miurus</i> , <i>Noturus</i>	156
<i>Prionotus</i>	403	<i>Ophichthys</i>	89
<i>Silurus</i>	159	<i>Scytalichthys</i>	89
<i>milktschitch</i> , <i>Salmo</i>	54	<i>Mixonus</i>	483
<i>milleri</i> , <i>Bathylagus</i>	69	<i>candalis</i>	483
<i>Cichlasoma</i>	417	<i>laticeps</i>	483
<i>Theraps</i>	417	<i>mixtus</i> , <i>Gadus tomcodus</i>	210
<i>millipunctatus</i> , <i>Gasterosteus</i>	239	<i>mizolepis</i> , <i>Plectromus</i>	233
<i>millneri</i> , <i>Nocomis</i>	136	<i>Scopelus</i>	233
<i>Pagellus</i>	337	<i>Mnierpes</i>	455
<i>millneriana</i> , <i>Hemitremia</i>	121	<i>macrocephalus</i>	455
<i>millnerianus</i> , <i>Phoxinus</i>	121	<i>Mobula</i>	31
<i>minace</i> , <i>Gila</i>	114	<i>auriculata</i>	31
<i>mindii</i> , <i>Stellifer</i>	347	<i>hypostoma</i>	32
<i>Syngnathus</i>	242	<i>olferi</i>	32
<i>mineopas</i> , <i>Bryttus</i>	299	<i>thypostoma</i>	32
<i>miniaturum</i> , <i>Peristedion</i>	405	<i>mobular</i> , <i>Raja</i>	31
<i>miniatus</i> , <i>Lepiopus</i>	300	<i>Mobulidæ</i>	31
<i>Lepomis</i>	300	<i>modesta</i> , <i>Cheonda</i>	120
<i>Itosicola</i>	365	<i>Gambusia</i>	185, 192

List of scientific names—Continued

	Page		Page
modestus, Julis	428	Moniana	131
Xyrichtys	430	aurata	132
Moebia	481	boucardi	132
promelas	481	callisema	132
moensis, Gonopterus	362	chihuahua	132
Moharra	342	complanata	131
evermanni	342	couchi	131
rhombea	342	delicosa	134
mohavensis, Siphateles	123	fermosa	129, 131
mohri, Clinus	471	frigida	131
mojarra, Cichlasoma	417	gibbosa	131
Theraps	417	gracilis	131
Mola	503	jugalis	131
mola	503	lactabilis	131
rotunda	503	leomina	131
mola, Diodon	503	lutrensis	131
Mola	503	nitida	135
Tetrodon	503	proserpina	132
Molacanthus	503	pulchella	131
pallasi	503	robusta	132
Molarii	94	rutila	131
molestrum, Gobiosoma	446	santamariae	131
Molidia	503	tristis	132
Molinesia fasciata	192	Monoceratias	508
Mollienesia	191	acanthias	508
formosa	192	monoceros, Alutera	496
gracilis	192	Balistes	495, 496
ionesi	188	unicolor, Balistes	496
latipinna	192	Monochir maculipinnis	230
petenensis	192	reticulatus	229
sphenops	192	Monolene	220
cuneata	193	atrimana	220
vanderpolli	193	sessilicauda	220
spilura	192	Monomacropus	480
velifera	192	malispinosus	480
Molinesia gracilis	192	Monomitopus	480
latipinna	191	torvus	480
petenensis	192	Monomitra	404
velifera	192	Monoprius	295
mollis, Aphyonius	484	maculatus	295
Bathysaurus	164	pigmentarius	295
Bothrocara	477	Monopterygius, Aspidophoroides	11
Careproctus	403	Cottus	397
Pleuronectes	229	Labrax	374
moluccensis, Apogon	295	Pleurogrammus	374
Molva	212	monophthalmus, Auchenopterus	456, 457
humbia	212	Monosira	344
molva	212	stahli	344
vulgaris	212	monstrosa, Chimera	32
Molva, Gadus	212	montagu, Liparis	399
Molva	212	montana, Cheonda	119
Molvella	208	Macrhybopsis	139
borealis	208	montanus, Clinostomus	119
Monacanthidae	493	Ilybopsis	139
Monacanthum proboscideum	495	Thymallus	66
Monacanthus	494	Montereux	361
amphioxys	494	reclava	391
auriga	494	montereysis, Gibbonsia elegans	458
ciliatus	494	Raja	26
davidsonii	494	montezuma, Astatheros	421
filamentosus	494	Heros	421
gallinula	494	montezumae, Xiphophorus	194
hispidus	494	monticola, Dajaus	254
irroratus	494	Mugil	254
macrocerus	494	montregis, Cliola	131
maerurus	493	moorei, Acteis	460
macracanthus	494	Congramus	454
occidentalis	494	Malacoctenus	460
oppositus	495	mordax abbotti, Osmerus	67
pardalis	493	mordax, Atherina	66
parraianus	494	Conger	88
pirana	494	Engraulis	47
pallia	494	Gymnothorax	91
punctatus	494	Macrodon	354
ruppelli	494	Muraena	91
zeidler	494	ophiurus, Macrodonophis	88
zeidler	494	Osmerus	67
aplocheilichthys	495	Sagenichthys	354
striatus	494	spectrum, Osmerus	67
tuckeri	495	morbibundus, Balistes	492
varius	494	moringa, Gymnothorax	91
monacanthus, Plectropoma	313	Muraena	91
monacus, Ceratichthys	138	Moringa	89
Erimacrus	138	bakeri	89
monacanthus, Stephanoberyx	232	lateralis	89
monacanthus, Squalus	19		

List of scientific names—Continued

	Page		Page
<i>Moringua linearis</i>	89	<i>Mugil berlandieri</i>	253
<i>lumbroides</i>	89	<i>brasiliensis</i>	253
<i>moringua</i> , <i>Muraena</i>	91	<i>cephalus</i>	252, 253
<i>Moringuidae</i>	89	<i>chanos</i>	40
<i>morio</i> , <i>Centrolophus</i>	267	<i>cinereus</i>	341
<i>Epinephelus</i>	312	<i>curema</i>	253
<i>Serranus</i>	312	<i>gaimardianus</i>	254
<i>mormyrus</i> , <i>Campostoma</i>	146	<i>guentheri</i>	253
<i>Morone</i>	307	<i>güntheri</i>	352
<i>americana</i>	307	<i>grunniens</i>	254
<i>flavescens</i>	281	<i>hospes</i>	253
<i>interrupta</i>	307	<i>inclis</i>	254
<i>maculata</i>	302	<i>irretitus</i>	253
<i>mississippiensis</i>	307	<i>lebranchus</i>	253
<i>pallida</i>	307	<i>lineatus</i>	253
<i>rufa</i>	307	<i>liza</i>	253
<i>Moronidae</i>	210	<i>mexicanus</i>	253
<i>Morrhua</i>	210	<i>monticola</i>	254
<i>americana</i>	210	<i>obliquus</i>	349
<i>californica</i>	211	<i>petrosus</i>	253
<i>punctatus</i>	210	<i>plumieri</i>	253
<i>morrhua</i> , <i>Gadus</i>	310	<i>proboscideus</i>	254
<i>Serranus</i>	79	<i>rammelsbergii</i>	253
<i>morrisi</i> , <i>Leptocephalus</i>	203	<i>salmoneus</i>	40
<i>Moseleya</i>	223	<i>setosus</i>	254
<i>moseri</i> , <i>Verasper</i>	418	<i>tang</i>	253
<i>motaguensis</i> , <i>Heros</i>	418	<i>thoburni</i>	253
<i>Parapetenis</i>	157	<i>trichodon</i>	254
<i>Pinnelodus</i>	157	<i>Mugilidae</i>	252
<i>Rhamdia</i>	208	<i>mugiloides</i> , <i>Eleotris</i>	436
<i>Motella</i>	208	<i>Mugilomorus</i>	39
<i>argentata</i>	209	<i>anna-carolina</i>	39
<i>caudacuta</i>	208	<i>Mugilops</i>	252
<i>ensis</i>	208	<i>cyarella</i>	252
<i>reinhardtii</i>	208	<i>cyaneus</i>	252
<i>septentrionalis</i>	208	<i>marina</i>	252
<i>motta</i> , <i>Elacate</i>	281	<i>marinus</i>	252
<i>moucharra</i> , <i>Glyphisodon</i>	415	<i>mülleri</i> , <i>Benthosema</i>	170
<i>mowbrayi</i> , <i>Hemulon</i>	329	<i>Leporinus</i>	98
<i>Rhinogobius</i>	439	<i>Pempheris</i>	323
<i>Moxostoma</i>	109	<i>Rhamphichthys</i>	101
<i>album</i>	110	<i>Salmo</i>	170
<i>alleganiensis</i>	111	<i>mülleri</i> , <i>Carcharias</i> (<i>Prionodon</i>).....	16
<i>anisurum</i>	109	<i>Mullhypeneus</i>	343
<i>aureolum</i>	110	<i>Mullidae</i>	343
<i>austrium</i>	111	<i>Mullidae</i>	344
<i>breviceps</i>	110	<i>Mullidae</i>	344
<i>bucco</i>	109	<i>rathbuni</i>	343
<i>campbelli</i>	109	<i>Mullus</i>	343
<i>claviformis</i>	110	<i>auratus</i>	343
<i>collapsum</i>	110	<i>barbatus</i>	343
<i>congestum</i>	111	<i>auratus</i>	343
<i>conus</i>	110	<i>bifasciatus</i>	344
<i>coregonus</i>	111	<i>flavolineatus</i>	295
<i>crassilabre</i>	109	<i>imberbis</i>	343
<i>kennerlyi</i>	111	<i>maculatus</i>	180
<i>lesneuri</i>	111	<i>multifasciata</i> , <i>Adinia</i>	178
<i>macrolepidotum</i>	110	<i>Hydrargyra</i>	418
<i>mascothe</i>	109	<i>Parapetenia</i>	418
<i>papillosum</i>	110	<i>multifasciatum</i> , <i>Cichlasoma</i>	446
<i>parvidens</i>	110	<i>Gobiosoma</i>	322
<i>pidiense</i>	111	<i>multifasciatus</i> , <i>Pronotogrammus</i>	461, 462
<i>pocilitum</i>	111	<i>multifilis</i> , <i>Blennius</i>	313
<i>robustum</i>	111	<i>multiguttatum</i> , <i>Plectropoma</i>	313
<i>rupiscartes</i>	111	<i>multiguttatus</i> , <i>Alphestes</i>	412
<i>tenue</i>	109	<i>multilineata</i> , <i>Furcraea</i>	192
<i>thalassinum</i>	110	<i>Pocilia</i>	330
<i>trisinatum</i>	105	<i>multilineatum</i> , <i>Hemulon</i>	412
<i>valenciennesi</i>	109	<i>multilineatus</i> , <i>Helias</i>	307
<i>victoriae</i>	109	<i>Labrax</i>	501
<i>mucosum</i> , <i>Xiphidion</i>	387	<i>multimaculatus</i> , <i>Diodon</i>	506
<i>mucosus</i> , <i>Acanthocottus</i>	399	<i>multiocellatus</i> , <i>Antennarius</i>	506
<i>Liparis</i>	476	<i>Chironectes</i>	183
<i>Lycodalepis</i>	476	<i>multipunctata</i> , <i>Skiffia</i>	183
<i>Lycodes</i>	399	<i>multipunctatum</i> , <i>Xenoderm</i>	151
<i>Neoliparis</i>	469	<i>multiradiatus</i> , <i>Arius</i>	183
<i>Xiphister</i>	308	<i>Characodon</i>	268
<i>mucronata</i> , <i>Perca</i>	467	<i>Cubiceps</i>	183
<i>mucronatum</i> , <i>Ophidium</i>	81	<i>Lernichthys</i>	423
<i>mucronatus</i> , <i>Neoconger</i>	45	<i>multispinosa</i> , <i>Herotilapia</i>	423
<i>Odontognathus</i>	175	<i>multispinosus</i> , <i>Heros</i>	92
<i>maulfish</i> , <i>Fundulus</i>	279	<i>multocellata</i> , <i>Muraena</i>	349
<i>muelleri</i> , <i>Lepidomegas</i>	170	<i>multofasciata</i> , <i>Sciæna</i>	50
<i>Scopelus</i>	252, 253	<i>mundicola</i> , <i>Anchoviella</i>	50
<i>Mugil</i>	253	<i>mundelus</i> , <i>Stolephorus</i>	430
<i>albula</i>	253	<i>mundiceps</i> , <i>Xyrichthys</i>	430
		<i>mundicorpus</i> , <i>Iniustus</i>	430

List of scientific names—Continued

	Page		Page
<i>mundus</i> , <i>Dactylagnus</i>	455	<i>Muraenophis punctata</i>	92
<i>Oligoplites</i>	278	<i>vicina</i>	92
<i>Urotrygon</i>	30	<i>Muraenopsis</i>	87
<i>Muræna</i>	77, 90	<i>triserialis</i>	88
<i>acuminata</i>	85	<i>murinus</i> , <i>Calliurus</i>	299
<i>afra</i>	91	<i>murrayi</i> , <i>Ipnoys</i>	170
<i>anguilla</i>	77	<i>Lyocetus</i>	511
<i>anguina</i>	90	<i>Melanocetus</i> (<i>Liocetus</i>).....	511
<i>aquæ-dulcis</i>	91, 93	<i>muscarum</i> , <i>Gobiesox</i>	490
<i>argentea</i>	77	<i>musculus</i> , <i>Cyclopterus</i>	400
<i>argus</i>	90	<i>muskoka</i> , <i>Notropis</i>	134
<i>balearica</i>	79	<i>mustacinus</i> , <i>Serranus</i>	310
<i>bostonensis</i>	77	<i>Mustela</i>	208
<i>clepsydra</i>	90	<i>mustela</i> , <i>Gadus</i>	208
<i>cœca</i>	84	<i>Mustelus</i> , <i>Les</i>	208
<i>conger</i>	79	<i>mustellurus</i> , <i>Gaidropsarus</i>	208
<i>dovii</i>	92	<i>Mustellus stellatus</i>	13
<i>elaborata</i>	93	<i>Mustelus</i>	13, 14, 17
<i>erebus</i>	92, 93	<i>asterias</i>	13
<i>havennensis</i>	87	<i>californicus</i>	13
<i>helenæ</i>	90	<i>dorsalis</i>	13
<i>infernalis</i>	92	<i>felis</i>	14
<i>insularum</i>	90	<i>lævis</i>	13
<i>lentiginosa</i>	90	<i>lunulatus</i>	13
<i>lineopinnis</i>	92	<i>mento</i>	13
<i>lita</i>	93	<i>mustelus</i>	13
<i>longicauda</i>	91	<i>plebejus</i>	13
<i>lumbricus</i>	76	<i>mustelus</i> , <i>Galeus</i>	13
<i>macrocephala</i>	77	<i>Mustelus</i>	13
<i>maculata nigra</i>	91	<i>Squalus</i>	13, 14
<i>et viridis</i>	92	<i>muticus</i> , <i>Lethotremus</i>	398
<i>maculosa</i>	87	<i>Mycteroperca</i>	314
<i>melanotis</i>	90	<i>bonaci xanthosticta</i>	314
<i>meleagris</i>	93	<i>boulengeri</i>	313
<i>mordax</i>	91	<i>bowersi</i>	314
<i>moringa</i>	91	<i>calliura</i>	315
<i>moringua</i>	91	<i>camelopardalis</i>	315
<i>multiocellata</i>	92	<i>falcata</i>	315
<i>myialeucosticta</i>	90	<i>phenax</i>	315
<i>myrialeucostictus</i>	92	<i>hopkinsi</i>	314
<i>nigra</i>	79	<i>olfax</i>	314
<i>nigricans</i>	90	<i>pardalis</i>	315
<i>ophis</i>	87, 94	<i>phenax</i>	315
<i>panamensis</i>	91	<i>rosacea</i>	314
<i>pantherina</i>	93	<i>tigris</i>	315
<i>perfleri</i>	93	<i>venadorum</i>	314
<i>picta</i>	93	<i>xenarcha</i>	314
<i>pinnata</i>	78	<i>Myctophide</i>	166
<i>pinta</i>	90	<i>Myctophum</i>	169
<i>pintita</i>	92	<i>affino</i>	169
<i>polyuranodon</i>	91	<i>atratum</i>	169
<i>punctata</i>	91	<i>aurolaternatum</i>	170
<i>ratibouri</i>	89	<i>benoiti</i>	169
<i>retifera</i>	90	<i>boops</i>	169
<i>rostrata</i>	77	<i>californiense</i>	169
<i>sanctæ-helenæ</i>	92	<i>crenulare</i>	170
<i>savanna</i>	78	<i>gracile</i>	169
<i>serpentina</i>	77	<i>hians</i>	169
<i>seu conger brasiliensis</i>	93	<i>humboldti</i>	169
<i>sideræ</i>	93	<i>hyzomi</i>	169
<i>sordida</i>	93	<i>laternatum</i>	170
<i>supremo etc</i>	79	<i>luminosum</i>	170
<i>unicolor etc</i>	90	<i>magaritatum</i>	169
<i>variegata</i>	93	<i>mexicanum</i>	168
<i>muræna</i> , <i>Callichelys</i>	86	<i>nannochir</i>	167
<i>Lycoodes</i>	475	<i>nitidulum</i>	169
<i>Muraenesocidae</i>	78	<i>nocturnum</i>	168
<i>Muraenox</i>	78	<i>oculeum</i>	169
<i>coniceps</i>	79	<i>punctatum</i>	169
<i>savanna</i>	78	<i>procellarium</i>	170
<i>trienipidata</i>	78	<i>protoculus</i>	168
<i>Muraenide</i>	90	<i>rafinesquei</i>	168
<i>Muraenoblenia</i>	8, 94	<i>regale</i>	168
<i>olivaen</i>	8	<i>remiger</i>	169
<i>Muraenoides</i>	467	<i>(Stenobranchius) leucopsarum</i>	168
<i>maxillaris</i>	468	<i>temniculum</i>	170
<i>ujef</i>	467	<i>townsendi</i>	167
<i>muraenoides</i> , <i>Blennius</i>	467	<i>mydrus</i> , <i>Cyprinodon</i>	180
<i>Gunnellus</i>	468	<i>myersi</i> , <i>Gambusia</i>	185
<i>Muraenophis</i>	90	<i>Mykiss</i>	56
<i>caramuru</i>	91	<i>mykiss</i> , <i>Salmo</i>	56
<i>catenilla</i>	94	<i>agua-bonita</i> , <i>Salmo</i>	59
<i>curvilineata</i>	91	<i>Myliobatis</i>	31
<i>marmoreus</i>	91	<i>acuta</i>	31
<i>ocellatus</i>	87	<i>asprinus</i>	30
<i>pantherina</i>	93	<i>bispinosus</i>	31

List of scientific names—Continued

	Page		Page
Myliobatis californicus.....	31	Myxostoma euryops.....	110
celtenkee.....	30	pœcllura.....	111
freminvillii.....	31	Myxus barengus.....	253
goodei.....	31	Myzopsetta.....	226
marginatus.....	31		
vespertilio.....	31	nachtriebi, Leuciscus.....	116
Mylocheilus.....	112	Morgariscus.....	116
caurinus.....	118	nacrea, Gila.....	114
fraterculus.....	112	nalnal, Sparactodon.....	280
lateralis.....	112	namaycush, Cristivomer.....	59
Myloleucus.....	119, 120	Salmo.....	59
parovanus.....	121	Nannobranchium.....	167
pulverentulus.....	119, 120	leucopsarum.....	168
thalassinus.....	122	macdonaldi.....	168
Mylopharodon.....	112	mexicanum.....	168
conocephalus.....	112, 113	nannochir.....	167
robustus.....	112, 113	nigrum.....	167
Mylorhina.....	31	regale.....	168
myops, Salmo.....	163	Nannocampus.....	244
Saurus.....	163	nanus.....	244
Trachinocephalus.....	163	subosseus.....	244
Myoxocephalus.....	387	nannochir, Myctophum.....	167
axillaris.....	387	Nannobranchium.....	167
jaok.....	387	Nannostomus.....	289
medius.....	387	nanomyzon, Catostomus.....	106
niger.....	387	Nanostoma.....	289
parvulus.....	387	arcansanum.....	289
polyacanthocephalus.....	387	elegans.....	289
stelleri.....	387	inscriptum.....	289
ve. rucosus.....	387	rupestre.....	289
myrialeucosticta, Muræna.....	90	swannanoa.....	289
myrialeucostictus, Muræna.....	92	thalassinum.....	289
myriaster, Rhomboidichthys.....	217	vinctipes.....	289
Myrichthys.....	85	zonale.....	289
acuminatus.....	85	Nansenia.....	68
oculatus.....	85	groenlandica.....	68
pantostigmus.....	85	nanus, Engraulis.....	47
tigrinus.....	85	Gadus.....	210
xyxsturus.....	85	Lipariscus.....	401
Myriolepis.....	373	Nannocampus.....	244
zonifer.....	373	Naracacion.....	27
Myriopristis.....	235	Naracaciontes.....	27
fulgens.....	234	Narceutes.....	52
occidentalis.....	235	erimelas.....	52
trachypoma.....	234	pluriserialis.....	52
Myripristis.....	235	stomias.....	52
humilis.....	235	Narcine.....	27
jacobus.....	235	brasiliensis.....	27
japonicus.....	234	corallina.....	27
lima.....	235	entemedor.....	27
occidentalis.....	235	indica.....	27
pœcilopus.....	235	nigra.....	27
Myrophis.....	82	umbrosa.....	27
egmontis.....	82	naresi, Salmo.....	61
lumbicus.....	83	Salvelinus.....	61
microstigmus.....	83	narinari, Raia.....	30, 31
punctatus.....	82, 83	Stoasodon.....	30
vafer.....	83	naso, Anchoviella.....	49
mystacalis, Lepomis.....	300	Stolephorus.....	49
mystacina, Gnathypops.....	453	nasus, Acanthoatus.....	75
mystacinus, Epinephelus.....	310	Bassozetus.....	481
Gnathypops.....	453	Diplanichias.....	503
Serranus.....	310	Lamna.....	19
mystes, Scorpaena.....	371	Menticirrhus.....	351
mysticetus, Cetengraulis.....	51	Notacanthus.....	75
Engraulis.....	51	Squalus.....	19
mystinus, Sebastichthys.....	264	Umbrina.....	351
Sebastosomus.....	365	nasuta, Malthœa.....	507
Mystriophis.....	88	Netuma.....	149
interstinetus.....	88	nasutum, Agonostoma.....	254
Mytilophagus.....	410	Campostoma.....	146
fasciatus.....	410	nasutus, Astyanax.....	97
Myxine.....	8, 94	Cantherines.....	493, 494
glutinosa.....	8	Leuciscus.....	139
limosa.....	8	Ogcoccephalus.....	507
Myxinidae.....	8	Trachynotus.....	276
Myxodagnus.....	455	natalis, Ameiurus.....	153
opercularis.....	455	nalis, Ameiurus.....	153
Myxodes elegans.....	458	Pimelodus.....	153
lugubris.....	460	natator, Carcharinus.....	17
macropus.....	460	Carcharias.....	17
varius.....	459	Nauclerus.....	278
versicolor.....	460	abbreviatus.....	278
Myxostoma.....	109	annularis.....	278
austrina.....	110	brachycentrus.....	278

List of scientific names—Continued

	Page		Page
<i>Myxostoma compressus</i>	278	<i>Nemabrama</i>	234
<i>lecurus</i>	278	<i>Nematistiidae</i>	280
<i>triacanthus</i>	278	<i>Nematistius</i>	280
<i>Naucrates</i>	239, 278	<i>pectoralis</i>	280
<i>cyanophrys</i>	278	<i>Nematognathi</i>	147
<i>ductor</i>	278	<i>Nematonurus</i>	203
<i>fanfarus</i>	278	<i>abyssorum</i>	203
<i>noxeboracensis</i>	278	<i>acrolepis</i>	203
<i>polysarcus</i>	278	<i>armatus</i>	203
<i>serratus</i>	278	<i>cyclolepis</i>	203
<i>naucrates</i> , <i>Echeneis</i>	448	<i>goodii</i>	203
<i>naufragium</i> , <i>Balistes</i>	491	<i>suborbitalis</i>	203
<i>Nautichthys</i>	382	(<i>Nematonurus</i>) <i>magnus</i> , <i>Macrurus</i>	204
<i>oculofasciatus</i>	382	<i>Nematonus</i>	482
<i>pribilovius</i>	382	<i>pectoralis</i>	482
<i>Nautiscus</i>	382	<i>nematophthalma</i> , <i>Merinthus</i>	372
<i>pribilovius</i>	382	<i>nematophthalmus</i> , <i>Sebastes</i>	372
<i>Naupomedium</i>	487	<i>nematopus</i> , <i>Neotroplus</i>	423
<i>porosissimum</i>	487	<i>Physiculus</i>	212
<i>naupomedium</i> , <i>Porichthys</i>	487	<i>Nemichthyidae</i>	83
<i>navarroensis</i> , <i>Hesperoleucus</i>	121	<i>Nemichthys</i>	83
<i>nawaga</i> , <i>Eleginus</i>	210	<i>avoetta</i>	83
<i>Gadus</i>	239, 210	<i>fronto</i>	83
<i>nazuz</i> , <i>Nototropis</i>	126	<i>infans</i>	83
<i>Orcella</i>	126	<i>scolopacea</i>	83
<i>Nealotus</i>	261	<i>senegalensis</i>	83
<i>tripes</i>	261	<i>Nemocampsis</i>	297, 298
<i>neapolitanus</i> , <i>Lampugus</i>	265	<i>nemoptera</i> , <i>Dixonina</i>	40
<i>nebrascensis</i> , <i>Nocomis</i>	137	<i>neo-boracensis</i> , <i>Fistularia</i>	245
<i>Nebris</i>	354	<i>Neobythites</i>	481
<i>microps</i>	354	<i>gillii</i>	481
<i>occidentalis</i>	354	<i>marginatus</i>	481
<i>zestus</i>	354	<i>ocellatus</i>	481
<i>Nebris concolor</i>	54	<i>robustus</i>	481
<i>nebularis</i> , <i>Platophrys</i>	217	<i>stelliferoides</i>	482
<i>nebulifer</i> , <i>Heros</i>	417	<i>Neoclinus</i>	458
<i>Labrax</i>	317	<i>beringianus</i>	458
<i>Paralichthys</i>	317	<i>satricus</i>	458
<i>Theraps</i>	417	<i>Neoconger</i>	81
<i>nebuliferus</i> , <i>Catostomus</i>	104	<i>nucronatus</i>	81
<i>nebulopunctatus</i> , <i>Gobius</i>	440	<i>perlongus</i>	82
<i>nebulosa</i> , <i>Acanth</i>	231	<i>vermiformis</i>	81
<i>Aphoristia</i>	231	<i>neogaea</i> , <i>Pfaffle</i>	121
<i>Cerna</i>	315	<i>neogaeus</i> , <i>Phoxinus</i>	121
<i>Perca</i> (<i>Percina</i>).....	283	<i>neoguinaica</i> , <i>Albula</i>	40
<i>Saurida</i>	164	<i>neohantoni</i> , <i>Coregonus</i>	64
<i>nebulosus</i> , <i>Ameiurus</i>	154	<i>Neoliparis</i>	399
<i>Apionichthys</i>	230	<i>atlanticus</i>	399
<i>catulus</i> , <i>Ameiurus</i>	154	<i>beringianus</i>	399
<i>Chiropsis</i>	373, 374	<i>bristolensis</i>	399
<i>Clinus</i>	471	<i>callyodon</i>	399
<i>Eriscion</i>	355	<i>flavus</i> , <i>flavus</i>	399
<i>Gasterosteus</i>	230	<i>flora</i>	399
<i>Lycias</i>	475	<i>grebnitzkii</i>	399
<i>Lycodes</i>	475	<i>greeni</i>	399
<i>Otolithus</i>	354, 355	<i>micraspidophorus</i>	399
<i>Pimelodus</i>	154, 155	<i>minckleyi</i>	399
<i>Pteropodus</i>	369	<i>rutteri</i>	399
<i>Sebastes</i>	369	(<i>Neoliparis</i>) <i>beringianus</i> , <i>Cyclogaster</i>	399
<i>Silurus</i>	155	<i>micraspidophorus</i> , <i>Cyclogaster</i>	399
<i>Urochatis</i>	30	<i>Neomænis</i>	324
<i>Urolophus</i>	30	<i>blackfordi</i>	453
<i>Zen</i>	292	<i>hastingsi</i>	326
<i>Neotoliparis</i>	392	<i>jordani</i>	324
<i>perlongus</i>	392	<i>megalophthalmus</i>	327
<i>Neotol</i>	396	<i>Neomugil</i>	254
<i>alpinus</i>	396	<i>diguetti</i>	254
<i>armatus</i>	396	<i>Neomuræna</i>	91
<i>chrysirostris</i>	396	<i>nigromarginata</i>	91, 93
<i>verrucosus</i>	396	<i>Neoporella</i>	190
<i>nectura</i> , <i>Gymnomuraena</i>	95	<i>holacanthus</i>	190
<i>necturus</i> , <i>Uropterygius</i>	54, 95	<i>Neostoma</i>	72
<i>Neotroplus</i>	124	<i>bathypneum</i>	72
<i>baconii</i>	124	<i>Neothunnus</i>	260
<i>carpani</i>	124	<i>albacores</i>	260
<i>nectroplus</i>	124	<i>allisoni</i>	260
<i>scholarii</i>	124	<i>atalina</i>	260
<i>nectus</i> , <i>Pomoxis</i>	30	<i>nepenthe</i> , <i>Eupomacentrus</i>	414
<i>neganda</i> , <i>Clupea</i>	44	<i>nephela</i> , <i>Helioperca</i>	301
<i>neglectus</i> , <i>Ambloplites</i>	132	<i>nephelus</i> , <i>Lepomis</i>	361
<i>Aphidion</i>	132	<i>Pleuronichthys</i>	225
<i>neglectus</i> , <i>Araucana</i>	442	<i>Spharoides</i>	498
<i>Chonopoma</i>	142	<i>Tetrodon</i>	498
<i>Conchoclema</i>	136	<i>nerka</i> , <i>Oncorhynchus</i>	55
<i>Conocentrus</i>	65	<i>schm</i>	55
<i>Salmo</i>	79	<i>Netrophus argenteus</i>	243

List of scientific names—Continued

	Page		Page
<i>Nerophis heckeli</i>	244	<i>nigricans</i> , <i>Cottus</i>	386
<i>maculata</i>	243	<i>Cypselurus</i>	201
<i>martiniensis</i>	243	<i>Enchelycore</i>	90
<i>netinianus</i> , <i>Acipenser</i> (<i>Huso</i>).....	35	<i>Entomacrodus</i>	463
<i>Nettastoma procerum</i>	82	<i>etowanus</i> , <i>Catostomus</i>	107
<i>Nettastomidae</i>	82	<i>Exocoetus</i>	201
<i>Netuma</i>	149, 150	<i>Girella</i>	339
<i>elattura</i>	149	<i>Heros</i>	419
<i>insculpta</i>	149	<i>Huro</i>	297
<i>kessleri</i>	149	<i>Hypentelium</i>	107
<i>nasuta</i>	149	<i>Hypoplectrus unicolor</i>	321
<i>oscula</i>	149	<i>Labrax</i>	308
<i>planiceps</i>	149	<i>Makaira</i>	263
<i>platypogon</i>	149	<i>Muraena</i>	90
<i>thalassina</i>	149	<i>Parapetenia</i>	419
<i>neucrates</i> , <i>Echeneis</i>	448	<i>Petromyzon</i>	8
<i>neucratoides</i> , <i>Echeneis</i>	449	<i>Pinelodus</i>	152
<i>neustrianus</i> , <i>Gasterosteus</i>	238	<i>Plectropoma</i>	321
<i>nevadensis</i> , <i>Apocope</i>	141	<i>nigriculus</i> , <i>Aconurus</i>	363
<i>Cyprinodon</i>	181	<i>Serranus</i>	310
<i>Rhinichthys</i> (<i>Apocope</i>).....	141	<i>nigrilabris</i> , <i>Goniias</i>	154
<i>nevinsense</i> , <i>Etheostoma</i>	283	<i>nigripinna</i> , <i>Corallicola</i>	456
<i>newberryi</i> , <i>Fario</i>	58	<i>nigripinnis</i> , <i>Argyrosomus</i>	62, 63
<i>Salmo</i>	58	<i>Bathyagonus</i>	395, 396
<i>newberryi</i> , <i>Eucyclogobius</i>	444	<i>Cephalopolis</i>	309
<i>Gobius</i>	444	<i>Clinus</i>	456
<i>newmani</i> , <i>Hystoma</i>	286	<i>Coregonus</i>	63
<i>Nexilarius</i>	414	<i>Cotylin</i>	489
<i>concolor</i>	414	<i>Gobiesox</i>	489
<i>nianguae</i> , <i>Etheostoma</i> (<i>Hadropterus</i>).....	285	<i>Leucichthys</i>	63
<i>Hypomomus</i>	285	<i>Minnilus</i>	125
<i>spilotum</i> , <i>Etheostoma</i>	285	<i>Promicropterus</i>	317
<i>nieraguensis</i> , <i>Carcharias</i>	16	<i>Rhypticus</i>	317
<i>Eulamia</i>	16	<i>Siremba</i>	480
<i>Gambusia</i>	184, 186	<i>nigrirostris</i> , <i>Chaetodon</i>	360
<i>Heros</i>	418	<i>Sarothrodus</i>	360
<i>Pinelodus</i>	157	<i>nigrita</i> , <i>Garrupa</i>	312
<i>Rhandia</i>	157	<i>nigritum</i> , <i>Cichlasoma</i>	418
<i>Theraps</i>	418	<i>nigritus</i> , <i>Serranus</i>	312
<i>nicholsi</i> , <i>Irigo</i>	428	<i>Theraps</i>	418
<i>Platyglottus</i>	428	<i>nigrocaustaneus</i> , <i>Enchelycore</i>	90
<i>nicholsi</i> , <i>Gobius</i>	440	<i>Gymnothorax</i>	90
<i>Rhinogobiops</i>	440	<i>nigrocinctus</i> , <i>Sebastes</i>	370
<i>Nicholsini</i>	431	<i>Sebastichthys</i>	370
<i>nieuhoii</i> , <i>Echeneis</i>	449	<i>Sebastodes</i>	364
<i>niger</i> , <i>Astronesthes</i>	71	<i>nigrofasciata</i> , <i>Hydrargyra</i>	176
<i>Bubalichthys</i>	102	<i>Limia</i>	191
<i>Carpiodes</i>	102	<i>nigrofasciatus</i> , <i>Archocentrus</i>	420
<i>Centrolophus</i>	267	<i>Hadropterus</i>	283
<i>Chiasmodon</i>	452	<i>Heros</i>	420
<i>Cottus</i>	387	<i>nigrolineatus</i> , <i>Diodon</i>	502
<i>Escolar</i>	261	<i>nigro-maculatus</i> , <i>Cantharus</i>	305
<i>Esox</i>	173	<i>nigromaculatus</i> , <i>Rhypticus</i>	316
<i>Gobius</i>	440	<i>nigromarginatus</i> , <i>Neomuraena</i>	91, 93
<i>Lamprogrammus</i>	484	<i>nigromarginatus</i> , <i>Gymnothorax ocellatus</i>	93
<i>Malacoosteus</i>	71	<i>nigrotæniata</i> , <i>Hybognathus</i>	144
<i>Melanocetus</i>	510	<i>nigrotæniatus</i> , <i>Graodus</i>	132, 133
<i>Myoxocephalus</i>	387	<i>nigrum</i> , <i>Boleosoma</i>	287
<i>Sparus</i>	265	<i>Petromyzon</i>	9
<i>Tautoga</i>	424	<i>nimbaria</i> , <i>Vinciguerra</i>	73
<i>Thyrstites</i>	261	<i>nimbarius</i> , <i>Zalages</i>	73
<i>nigerrima</i> , <i>Meladerma</i>	281	<i>niphobes</i> , <i>Epinephelus</i>	312
<i>nigra</i> , <i>Astronesthes</i>	71	<i>Sparisoma</i>	432
<i>Ballistes</i>	493	<i>niphonius</i> , <i>Priacanthus</i>	323
<i>Dicrolene</i>	483	<i>nipigon</i> , <i>Leucichthys</i>	64
<i>Etheostoma</i>	287	<i>nisorius</i> , <i>Fundulus</i>	175
<i>Gila</i>	119	<i>nitens</i> , <i>Anago</i>	80
<i>Muraena</i>	79	<i>Ophisoma</i>	80
<i>maculata</i>	91, 92	<i>Trichiurus</i>	262
<i>Narcine</i>	27	<i>nitida</i> , <i>Hybopsis</i>	135
<i>Perca</i>	267	<i>Julis</i>	429
<i>marina cauda</i>	330	<i>Moniana</i>	135
<i>nigrellus</i> , <i>Hyborhynchus</i>	145	<i>Pomotis</i>	300
<i>nigrescens</i> , <i>Centropomus</i>	306	<i>nitidissima</i> , <i>Julis</i>	429
<i>Coryphæna</i>	317	<i>nitidulum</i> , <i>Myctophum</i>	169
<i>Cycleptus</i>	102	<i>nitidum</i> , <i>Pristipoma</i> (<i>Hæmulopsis</i>).....	333
<i>Dorsuarius</i>	339	<i>Thalassoma</i>	429
<i>Exoglossum</i>	146	<i>nitidus</i> , <i>Alburnus</i>	123
<i>Salmo</i>	60	<i>Ballistes</i>	493
<i>Symphurus</i>	230	<i>Brachydeuterus</i>	333
<i>Tigoma</i>	120	<i>Leuciscus</i>	117
<i>nigricans</i> , <i>Bathylaco</i>	164	<i>Pomoxis</i>	304
<i>Camarina</i>	338, 339	<i>Salmo</i>	60
<i>Catostomus</i>	107	<i>Tetragonopterus</i>	96
<i>Centropristes</i>	317	<i>nivea</i> , <i>Erogala</i>	129

List of scientific names—Continued

	Page		Page
niveatus, <i>Epinephelus</i>	311	notatus, <i>Pomotis</i>	302
<i>Pomacentrus</i>	416	<i>Porichthys</i>	487
<i>Serranus</i>	310, 311	<i>Semotilus</i>	177
<i>Stegastes</i>	416	<i>Zygocetes</i>	177
niveiventris, <i>Amiurus</i>	153	notemigonoides, <i>Notropis</i>	125
niveus, <i>Hybopsis</i>	129	<i>Notemigonus</i>	114
<i>Nivicola</i>	291	auratus.....	114, 115
artesia.....	292	bosci.....	115
borealis.....	291	crysoleucas.....	115
cragini.....	292	gardoneus.....	115
lepidogenys.....	292	ischanus.....	115
obeyense.....	292	nothochir, <i>Ophichthys</i>	87
pagei.....	292	Quassiremus.....	87
punctulata.....	292	<i>Nothonotus</i>	282, 288, 290
tippecanoe.....	292	camurus.....	290
virgata.....	292	cinereus.....	290
nivipes, <i>Emblemaria</i>	404	inscriptus.....	289
nobiliana, <i>Torpedo</i>	27	jordani.....	290
nobilior, <i>Esox</i>	172	maculatus.....	290
nobilis, <i>Atractoscion</i>	356	rufilineatus.....	290
<i>Corelon</i>	333	tesselatus.....	290
<i>Esox</i>	172	thalassinus.....	289
<i>Gambusia</i>	185	vulneratus.....	290
<i>Heterantrina</i>	185	(<i>Nothonotus</i>) <i>jordani</i> , <i>Etheostoma</i>	290
<i>Johnius</i>	356	nothus, <i>Cynoscion</i>	355
<i>Perca</i>	333	<i>Otolithus</i>	355
<i>Polynixia</i>	294	<i>Notidani</i>	11
<i>Nocomis</i>	137	<i>Notidanus</i>	11
bellus.....	137	<i>Notistum</i>	263
hyostomus.....	139	gladius.....	263
kentuckiensis.....	137	<i>Notogrammus</i>	469
micropogon.....	137	rothrocki.....	469
milneri.....	136	<i>Notolepidomyzon</i>	104
nebrascensis.....	137	clarkii.....	104
rubrifrons.....	138	generosus.....	104
nocomis, <i>Hybopsis</i>	135	plebeius.....	104
<i>Notropis</i>	135	sante-anae.....	104
nocturna, <i>Colletia</i>	168	<i>Notorhynchus borealis</i>	11
<i>Echidna</i>	94	<i>Notorynchus</i>	11
<i>Rabida</i>	156	maculatus.....	11
nocturnum, <i>Myctophum</i>	168	platycephalus.....	11
nocturnus, <i>Noturus</i>	156	<i>Notoscepus</i>	166
<i>Poecilophis</i>	94	castaneus.....	167
nodulosus, <i>Xenodermichthys</i>	53	margaritiferus.....	166
<i>Nomalus</i>	354	quercinus.....	166
<i>Nomeidus</i>	268	<i>Notosema</i>	225
<i>Nomeus</i>	268	dilecta.....	225
gronovii.....	268	dilectum.....	225
maculosus.....	268	notospilus, <i>Arctidius</i>	376
<i>Oxyurus</i>	268	<i>P. trochyle</i>	376
normalis, <i>Bassozetus</i>	481	notospilus, <i>Juulidius</i>	428
norvegica, <i>Perca</i>	363	<i>Pseudojulis</i>	428
norvegicus, <i>Lepidolepus</i>	205	<i>Nototropis forlonensis</i>	131
norwegianus, <i>Squalus</i>	22	lirus.....	126
notabilis, <i>Argyreus</i>	141	nazas.....	126
<i>Notacanthidae</i>	75	stilbius.....	125
<i>Notacanthus</i>	75	<i>Notropis</i>	123
analis.....	76	aneolus.....	143
challengeri.....	76	alabamae.....	126
chemnitzi.....	75	albeolus.....	146
maui.....	75	annulatus.....	121
placidus.....	76	arctidius.....	123
rhomboid.....	76	arctidius.....	124
rostratus.....	76	arctidius.....	124
spadix.....	76	arctidius.....	124
<i>Notogobius</i>	149	atherinoides.....	123
<i>Notoda, Atherina</i>	247	aztecus.....	143
Belone.....	195	boop.....	134
<i>Cyprinella</i>	130	brachydon.....	135
<i>Docoptera</i>	46	brimleyi.....	127
<i>Eurostus</i>	139	buckhami.....	134
<i>Lepomis</i>	298	calientis.....	134
<i>Microgobius</i>	44	cayuga.....	133
<i>Micropogon</i>	247	atrocaudalis.....	133
<i>Perca</i>	281	chalybeus abbotti.....	127
<i>Milichthys</i>	507	chamberlaini.....	132
<i>Strongylura</i>	105	chilumhua.....	132
notatum, <i>Haemulon</i>	329	cornutus isolepis.....	128
<i>Pristipoma</i>	332	cummingsi.....	133
notatus, <i>Balistes</i>	493	dilectus.....	125
<i>Hyborhynchus</i>	145	fumeus.....	125
<i>Labrax</i>	307	garmani.....	131
<i>Minnilus</i>	145	germanus.....	136
<i>Parachanna</i>	259	gilberti.....	134
<i>Paralichthys</i>	152	heterodon richardsoni.....	136

List of scientific names—Continued

	Page		Page
<i>Notropis heterolepis</i>	134	<i>nox</i> , <i>Auchenopterus</i>	457
<i>horatii</i>	134	<i>Cremnobates</i>	457
<i>jordani</i>	136	<i>noyesi</i> , <i>Scarus</i>	434
<i>kanawha</i>	134	<i>nubila</i> , <i>Apocope</i>	140
<i>keimi</i>	133	<i>Dionda</i>	144
<i>kendalli</i>	135	<i>nubilus</i> , <i>Alburnops</i>	144
<i>lermae</i>	143	<i>Argyreus</i>	140
<i>leuciodus</i>	124	<i>Lumpenus</i>	471
<i>louisiana</i>	124	<i>nuchalis</i> , <i>Hybognathus</i>	143
<i>lythurus</i>	126	<i>Scarus</i>	434
<i>macdonaldi</i>	127	<i>nuchifilus</i> , <i>Biennius</i>	461
<i>macrolepidotus</i>	125	<i>nichipinnis</i> , <i>Chinus</i>	459
<i>mearnsi</i>	122	<i>Labrisomus</i>	459
<i>megalops albeolus</i>	129	<i>nudus</i> , <i>Cyclopterus</i>	489
<i>metallicus</i>	124	<i>Gymnachirus</i>	229
<i>micropteryx</i>	124	<i>nugator</i> , <i>Bryostemma</i>	466
<i>muskoka</i>	134	<i>nummifer</i> , <i>Carpiodes</i>	103
<i>noemius</i>	135	<i>Salmo</i>	61
<i>notatus</i>	124	<i>nuttalli</i> , <i>Exocoetus</i>	201
<i>notemigonoides</i>	125	<i>nuttingi</i> , <i>Chaunax</i>	506
<i>nux</i>	135	<i>Scorpaena</i>	371
<i>orea</i>	126	<i>nuttingii</i> , <i>Antennarius</i>	506
<i>ortenburgeri</i>	135	<i>nux</i> , <i>Hybopsis</i>	145
<i>ozareanus</i>	135	<i>Notropis</i>	135
<i>phenacobius</i>	134	<i>nycterinus</i> , <i>Melamphaes</i>	233
<i>photogenis</i>	123	<i>Plectromus</i>	233
<i>pilsbryi</i>	124	<i>Nyctimaster</i>	167
<i>reticulatus</i>	133	<i>alatus</i>	167
<i>robustus</i>	132	<i>townsendi</i>	167
<i>roseipinnis</i>	126	<i>Nyctophus</i>	169
<i>rubrifrons</i>	124	<i>rafinesquei</i>	169, 169
<i>sabine</i>	135		
<i>santamariae</i>	131	<i>oaxaca</i> , <i>Fundulus</i>	174
<i>scepticus</i>	123	<i>Profundulus</i>	174
<i>scopiferus</i>	132	<i>Rhamdia</i>	157
<i>socius</i>	124	<i>obesa</i> , <i>Algansea</i>	122
<i>stilbatus</i>	125	<i>obesus</i> , <i>Amiurus</i>	154
<i>stonei</i>	127	<i>Carcharias</i>	14
<i>teleostepus</i>	124	<i>Echinorhinus</i>	22
<i>arcuatus</i> , <i>mus</i>	124	<i>Enneacanthus</i>	304
<i>topeka</i>	143	<i>Leuciscus</i>	128
<i>umbrellalis fasciolaris</i>	126	<i>Pomotis</i>	304
<i>umbrifer</i>	131	<i>Siphaeteles</i>	122
<i>universitatis</i>	124	<i>Trienodon</i>	14
<i>welaka</i>	124	<i>obeyense</i> , <i>Etheostoma</i>	292
<i>notropoides</i> , <i>Creagrutus</i>	98	<i>Nivicola</i>	292
<i>nottii</i> , <i>Zygonectes</i>	178	<i>obliquatus</i> , <i>Cynoscion</i>	355
<i>Noturus</i>	155	<i>Diabasis</i>	330
<i>elassochir</i>	156	<i>Otolithus</i>	355
<i>eleutherus</i>	156	<i>obliquus</i> , <i>Mugil</i>	349
<i>exilis</i>	156	<i>obliteratus</i> , <i>Alutarius</i>	496
<i>flavus</i>	155	<i>oblonga</i> , <i>Platessa</i>	224
<i>funebis</i>	156	<i>oblongior</i> , <i>Pimelepterus</i>	340
<i>furius</i>	155, 156	<i>oblongus</i> , <i>Astatheros</i>	421
<i>gilberti</i>	156	<i>Cyprinus</i>	109
<i>leptacanthus</i>	155	<i>Erimyzon</i>	109
<i>luteus</i>	155	<i>Gobius</i>	448
<i>marginatus</i>	156	<i>Heros</i>	421
<i>miurus</i>	156	<i>Paralichthys</i>	224
<i>nocturnus</i>	156	<i>Pleuronectes</i>	224
<i>occidentalis</i>	155	<i>obolarius</i> , <i>Gasterosteus</i>	237
<i>platycephalus</i>	155	<i>obscura</i> , <i>Liopsetta</i>	228
<i>sialis</i>	155	<i>Sternoptix</i>	73
<i>novae-boracensis</i> , <i>Vomer</i>	275	<i>Sternoptyx</i>	73
<i>Novacula</i>	430	<i>obscuratus</i> , <i>Gymnothorax</i>	93
<i>kallasoma</i>	430	<i>Pomacentrus</i>	414
<i>novacula</i> , <i>Coryphaena</i>	430	<i>obscurus</i> , <i>Carcharias</i>	16
<i>Xyrichtys</i>	430	<i>Centrarchus</i>	298
<i>Novaculichthys</i>	430	<i>Pleuronectes</i>	228
<i>infirmi</i>	430	<i>Pomotis</i>	301
<i>martinicensis</i>	430	<i>Squalus</i>	16
<i>rosipes</i>	430	<i>obtusa</i> , <i>Ophisoma</i>	79
<i>ventralis</i>	430	<i>Rain</i>	26
<i>novae-angliae</i> , <i>Coregonus</i>	65	<i>obtusirostris</i> , <i>Exocoetus</i>	200
<i>novae-orleansis</i> , <i>Anguilla</i>	77	<i>obtusum</i> , <i>Haemulon</i>	332
<i>novae-terrae</i> , <i>Anguilla</i>	77	<i>obtusius</i> , <i>Rhinichthys</i>	140
<i>novaeboracensis</i> , <i>Exocoetus</i>	201	<i>Scarus</i>	434
<i>Gasterosteus</i>	237	<i>Squalus</i>	16
<i>Naucrates</i>	278	<i>obvelatus</i> , <i>Prionodon</i>	16
<i>novemfasciatus</i> , <i>Lutjanus</i>	325	<i>Occa</i>	394
<i>Lutjanus</i>	325	<i>verrucosa</i>	394
<i>novemlineatus</i> , <i>Chasmodes</i>	462	<i>occa</i> , <i>Cælorhynchus</i>	207
<i>Pholis</i>	462	<i>Macrurus</i>	207
<i>novem-maculatus</i> , <i>Diodon</i>	501	<i>Pristis</i>	23
<i>novemradiata</i> , <i>Agosia</i>	141	<i>Occella</i>	394
		<i>dodecaedron</i>	394

List of scientific names—Continued

	Page		Page
occidentalis, <i>Amia</i>	38	oculocirris, <i>Emblemaria</i>	464
Catostomus.....	106	oculofasciatus, <i>Blepsias</i>	382
Chalinura.....	204	<i>Nautichthys</i>	382
Epigonus.....	296	oculo-radiato, <i>Turdus</i>	426
Gasterosteus.....	238, 239	Ocyanthias.....	320
Heterandria.....	189	<i>martinicensis</i>	320
Hypopomus.....	101	Ocyurus.....	327
Lepomis.....	301	<i>chrysurus</i>	327
Leucosomus.....	113	<i>lutjanoides</i>	327
Malacocephalus.....	204	<i>riggersmœi</i>	327
Monacanthus.....	494	ocyrus, <i>Centropriotes</i>	318
Myriopristis.....	235	<i>Pimblepterus</i>	340
Myripristis.....	235	<i>Seetator</i>	340
Nebris.....	354	<i>Serranus</i>	318
Noturus.....	155	Odontaspide.....	19
Poeciliopsis.....	189	Odontaspis.....	19
Roeboides.....	98	<i>liitoralis</i>	19
Tetramerus.....	27	Odontognathus.....	45
Torpedo.....	27	<i>mucronata</i>	45
Xenotis.....	301	<i>panamensis</i>	45
occipitalis, <i>Scorpaena</i>	371	(<i>Odontognathus</i>) <i>panamensis</i> , <i>Pristigaster</i>	45
oceanica, <i>Anguilla</i>	79	Odontopyxis.....	396
oceanicus, <i>Blennius</i>	461	<i>frenatus</i>	395
<i>Gobionellus</i>	441	<i>leptorhynchus</i>	395
<i>Gobius</i>	441	<i>trispinosus</i>	396
<i>Rhinoscopelus</i>	169	Odontoscion.....	334
Oceanomyzon.....	8	<i>archidamum</i>	345
<i>wilsoni</i>	8	<i>dentex</i>	334
oceanops, <i>Elacatinus</i>	442	<i>xanthops</i>	334
ocella, <i>Eretmichthys</i>	481	oerstedii, <i>Argyreolus</i>	275
<i>Rhinichthys</i>	139	<i>Selene</i>	275
<i>Venefica</i>	82	<i>Tetragonopterus</i>	96
ocellaris, <i>Fundulus</i>	176	ogac, <i>Gadus</i>	210
<i>Gobius</i>	142	<i>Ogocephalus</i>	506
<i>Platessa</i>	224	Ogocephalus.....	506
ocellata, <i>Bollmannia</i>	443	<i>nasutus</i>	507
<i>Chænopsis</i>	465	<i>radiatus</i>	507
<i>Pereca</i>	348	<i>vespertilio</i>	507
<i>Raia</i>	25	Ogilbia.....	479
<i>Sciænops</i>	348	<i>cayorum</i>	480
<i>Zenopsis</i>	232	<i>ventralis</i>	480
ocellatus, <i>Acanthocottus</i>	387	<i>verillii</i>	480
<i>Anarrhichthys</i>	472	oglin, <i>Megachanna</i>	44
<i>Antennarius</i>	505	oglinum, <i>Opisthonema</i>	44
<i>Chænopsis</i>	465	ohiensis, <i>Accipenser</i>	35
<i>Chaetodon</i>	360	<i>Alosa</i>	42
<i>Clinus</i>	459	<i>Cichla</i>	298
<i>Gymnothorax</i>	91, 93	<i>Esox</i>	172
<i>Hippoglossus</i>	218	<i>masquinongy</i>	172
<i>Lophius histrio</i>	505	ojanco, <i>Mesoprion</i>	327
<i>Malacoctenus</i>	459	okeechobeensis, <i>Ameiurus lacustris</i>	152
<i>Muraenopsis</i>	87	<i>Haustor</i>	152
<i>Neolythites</i>	481	<i>Halargyreus</i>	152
<i>nigromarginatus</i> , <i>Gymnothorax</i>	93	Okkelbergia.....	10
<i>Opichthys</i>	87	<i>lamotteni</i>	10
<i>Platophrys</i>	217	olax, <i>Mycteroperca</i>	314
<i>Pleuronichthys</i>	225	<i>Serranus</i>	314
<i>Rhombus</i>	217	olferi, <i>Argyropelecus</i>	74
<i>saxicola</i> , <i>Gymnothorax</i>	93	<i>Cephalopterus</i>	32
<i>Zeus</i>	232	<i>Mobula</i>	32
ocellicauda, <i>Amia</i>	38	<i>Sternoptyx</i>	74
ocellifer, <i>Clinus</i>	458	olidus, <i>Hypomesus</i>	68
ocelthane, <i>Chirostoma</i>	251	<i>salmo</i> (<i>Oncorhynchus</i>).....	68
octodecemspinosus, <i>Acanthocottus</i>	386	oligaspis, <i>Alburnus</i>	125
octodecem-spinosus, <i>Cottus</i>	386	Oligocephalus.....	290
oculofasciatus, <i>Astatheros</i>	421	<i>aubeanaubei</i>	291
<i>Iheros</i>	421	<i>caeruleus</i>	291
octofilis, <i>Trichidion</i>	256	<i>frickia</i>	291
Octogrammus.....	373	<i>grahamii</i>	291
<i>pallasi</i>	374	<i>hildebrandti</i>	291
octogrammus, <i>Hexagrammus</i>	374	<i>humeralis</i>	293
<i>labrax</i>	374	<i>iowae</i>	291
octonemus, <i>Polynemus</i>	256	<i>jessiae</i>	291
oculata, <i>Equidina</i>	22	<i>leonensis</i>	291
oculatus, <i>Brachy</i>	390	<i>lepidus</i>	291
<i>Etelis</i>	328	<i>luteovinctus</i>	291
<i>Icelinus</i>	376	<i>pulchellus</i>	291
<i>Latebrus</i>	297	Oligocottus.....	390
<i>Lepisosteus</i> (<i>Cylindrosteus</i>).....	37	<i>aculeiceps</i>	391
<i>Maurolicus</i>	74	<i>analis</i>	390
<i>Myriichthys</i>	85	<i>borealis</i>	390
<i>Pisodontocephalus</i>	85	<i>embryum</i>	391
<i>Serranella</i>	328	<i>globiceps</i>	391
oculatus, <i>Orthogoriscus</i>	503	<i>maculatus</i>	390
oculeum, <i>Myctophum</i>	169	<i>synderi</i>	391

List of scientific names—Continued

	Page		Page
oligodon, <i>Osmerus</i>	68	<i>Ophichthus chamensis</i>	88
<i>Polynemus</i>	256	<i>evionthas</i>	87
oligolepis, <i>Brycon</i>	99	<i>gomesii</i>	88
oligopeltis, <i>Acipenser</i> (<i>Antacetus</i>).....	34	<i>guttifer</i>	87
Oligoplites.....	277	<i>magniculus</i>	88
<i>altus</i>	278	<i>ocellatus</i>	87
<i>inornatus</i>	277	<i>ophis</i>	87
<i>mundus</i>	278	<i>parilis</i>	88
<i>palometa</i>	278	<i>retropinnis</i>	87
<i>refulgens</i>	278	<i>rugifer</i>	88
<i>saliens</i>	277	<i>triserialis</i>	88
<i>saurus</i>	277	<i>zophochir</i>	88
Oligopodes.....	266	Ophichthyidæ.....	84
Oligopodus.....	266	Ophichthys.....	87
Oligopus.....	266	<i>biserialis</i>	88
oligosticta, <i>Gambusia</i>	186	(<i>Cryptopterus</i>) <i>frontalis</i>	85
olisthostoma, <i>Gerres</i>	342	<i>guttifer</i>	87
olisthostomus, <i>Diapterus</i>	342	<i>miurus</i>	89
olivacea, <i>Poecilia</i>	177	<i>nothochir</i>	87
olivaceus, <i>Leucis</i>	122	<i>pauciporus</i>	88
<i>Siphateles</i>	122	<i>pisavarius</i>	85
olivaris, <i>Opladelus</i>	155	<i>retropinnis</i>	87
<i>Silurus</i>	155	<i>schneideri</i>	88
olmstedii, <i>Boleosoma</i>	287	(<i>Sphagebranchus</i>) <i>anguiformis</i>	84
<i>brevipinnis</i> , <i>Boleosoma</i>	287	<i>xysturus</i>	85
<i>Etheostoma</i>	287	<i>zopochir</i>	88
olomina, <i>Brachyrhaphis</i>	187	<i>Ophichthus evionthas</i>	87
<i>Priapichthys</i>	187	<i>ophidianus</i> , <i>Gempylus</i>	262
olriki, <i>Aspidophoroides</i>	397	Ophidiæ.....	484
<i>Ulcina</i>	397	Ophidion.....	485
omiscomaycus, <i>Percopsis</i>	215	<i>beani</i>	485
<i>Salmo</i>	215	<i>grællsi</i>	485
ommata, <i>Discopyge</i>	27	<i>holbrookii</i>	485
<i>Heterandria</i>	175	<i>imberbe</i>	467
<i>Leptolucania</i>	175	Ophidium.....	485
<i>Opistognathus</i>	453	<i>atropurpureum</i>	469
ommatistius terræ-novæ, <i>Triglops</i>	380	<i>brevibarbe</i>	484
ommatum, <i>Opisthognathus</i>	453	<i>holbrookii</i>	485
ommatus, <i>Paralichthys</i>	224	<i>josephi</i>	485
Omocheilus.....	86	<i>marginatum</i>	485
<i>cruentifer</i>	86	<i>mucronatum</i>	467
omoeyaneus, <i>Eleotris</i>	436	<i>parrii</i>	478
omostigma, <i>Genypterus</i>	485	<i>pellucidum</i>	79
<i>Otophidium</i>	485	<i>stigma</i>	477
Omosudidæ.....	171	<i>taylori</i>	485
Omosudis.....	171	<i>unernak</i>	477
<i>lowii</i>	171	<i>viridis</i>	477
Oncocephalus.....	506	Ophioblennius.....	464
Oncocoelus.....	388	<i>steindachneri</i>	464
<i>gilberti</i>	389	<i>webbii</i>	464
<i>hexacornis</i>	388	Ophiodon.....	374
<i>gilberti</i>	389	<i>elongatus</i>	374
<i>quadricornis</i>	388	Ophiodontidæ.....	374
Oncorhynchus.....	54	Ophiognathus.....	95
<i>gorbuscha</i>	54	<i>ampullaceus</i>	95
<i>kamloops</i>	58	ophioneus, <i>Sphagebranchus</i>	84
<i>kenneryli</i>	55	Ophioseion.....	347
<i>keta</i>	54	<i>adustus</i>	347
<i>kisutch</i>	54	<i>imiceps</i>	348
<i>nerka</i>	55	<i>punctatissimus</i>	347
<i>tschawytscha</i>	55	<i>sciurus</i>	348
oneida, <i>Catostomus</i>	110	<i>simulus</i>	348
Oneirodes.....	509	<i>strabo</i>	347
<i>eschrichtii</i>	509	<i>typicus</i>	347
onitis, <i>Labrus</i>	424	ophioseion, <i>Corvina</i>	347
<i>Tautoga</i>	424	ophis, <i>Muraena</i>	87
Onos.....	208	<i>Ophichthus</i>	87
<i>rufus</i>	208	Ophisoma.....	79
ontariensis, <i>Leucichthys</i>	62	<i>acuta</i>	79
<i>Thymallus</i>	66	<i>balearicum</i>	80
<i>Triglopsis</i>	389	<i>macrurum</i>	80
Onus.....	214	<i>nitens</i>	80
<i>riani</i>	214	<i>obtusum</i>	79
onychus, <i>Cottus</i>	386	<i>prorigerum</i>	80
<i>Oonidus</i>	499	Ophisomus.....	467
opah, <i>Zeus</i>	217	Ophisternon.....	76
opalescens, <i>Lythrulon</i>	331	Ophisuraphis.....	84
opalina, <i>Julis</i>	426	Ophisurus.....	85
opereularis, <i>Acantholiparis</i>	401	<i>californiensis</i>	88
<i>Myxodagnus</i>	455	<i>chrysops</i>	88
<i>Polydactylus</i>	256	<i>crocodilinus</i>	89
<i>Stolephorus</i>	51	<i>gomesii</i>	88
<i>Trichidion</i>	256	<i>guttatus</i>	87
Ophichthius regius.....	87	<i>interstinctus</i>	88
Ophichthus.....	87	<i>latimaiculatus</i>	85
<i>biserialis</i>	88		

List of scientific names—Continued

	Page		Page
<i>Ophisurus longus</i>	85	<i>oregonia</i> , <i>Atherinops</i>	252
<i>ophis</i>	87	<i>Oregonichthys</i>	138
<i>opilis</i>	88	<i>osbeckii</i>	138
<i>ostellatus</i>	88	<i>osbeckii</i>	138
<i>ostellatus</i>	88	<i>oregonus</i> , <i>Coregonus</i>	66
<i>oxysturus</i>	85	<i>Irillion</i>	66
<i>ophryas</i> , <i>Paralichthys</i>	224	<i>Oreosoma</i>	232
<i>Prionotus</i>	407	<i>atlanticum</i>	232
<i>ophthalmicus</i> , <i>Lepomis</i>	299	<i>conferrum</i>	232
<i>Opistharthri</i>	11	<i>orientalis</i> , <i>Anarhichas</i>	472
<i>Opisthiotus</i>	339	<i>Pelamys</i>	259
<i>Opisthognathidae</i>	452	<i>Salmo</i>	55
<i>Opisthognathus</i>	452	<i>oregonus</i> , <i>Atherinops</i>	252
<i>ovieri</i>	453	<i>Atherinops</i>	252
<i>ovierus</i>	453	<i>Codoma</i>	143
<i>ovierus</i>	453	<i>Embiotoca</i>	411
<i>ovierus</i>	452	<i>Hydrargyra</i>	176
<i>ovierus</i>	453	<i>Limia</i>	191
<i>ovierus</i>	453	<i>Raja</i>	26
<i>ovierus</i>	452	<i>ornatum</i> , <i>Camposioma</i>	146
<i>ovierus</i>	453	<i>oregonus</i> , <i>Atherinops</i>	252
<i>ovierus</i>	453	<i>Cochlognathus</i>	146
<i>ovierus</i>	453	<i>Esox</i>	173
<i>ovierus</i>	453	<i>Gillellus</i>	455
<i>ovierus</i>	453	<i>Gunnellus</i>	468
<i>ovierus</i>	453	<i>Labrus</i>	429
<i>ovierus</i>	453	<i>Pholis</i>	468
<i>ovierus</i>	452	<i>Tetrodon</i>	500
<i>Opisthonema</i>	44	<i>Ornithichthys</i>	407
<i>libertate</i>	44	<i>orqueta</i> , <i>Chloroscombrus</i>	276
<i>oglinum</i>	44	<i>orsini</i> , <i>Ozodura</i>	503
<i>Opisthopterus</i>	45	<i>ortenburgeri</i> , <i>Hybopsis</i>	135
<i>dovii</i>	45	<i>Notropis</i>	135
<i>macrops</i>	45	<i>Orthocentrus</i>	66
<i>opisthophthalmus</i> , <i>Ariosoma</i>	80	<i>Orthodon</i>	112
<i>opisthotremus</i> , <i>Careproctus</i>	403	<i>microlepidotus</i>	112
<i>opisthophthalmus</i> , <i>Conger</i>	80	<i>Orthogoriscus</i>	503
<i>Opladelus</i>	155	<i>orthogoriscus</i> , <i>Orthogoriscus</i>	274
<i>ovierus</i>	155	<i>Orthonopias</i>	391
<i>opisthophthalmus</i>	374	<i>triacis</i>	392
<i>opisthophthalmus</i>	374	<i>orthonotus</i> , <i>Ditrema</i>	411
<i>opisthophthalmus</i>	495	<i>Orthopristis</i>	335
<i>opisthophthalmus</i>	487	<i>chalcicus</i>	335
<i>opisthophthalmus</i>	487	<i>chrysotremus</i>	335
<i>opisthophthalmus</i>	487	<i>duplex</i>	335
<i>opisthophthalmus</i>	487	<i>poeyi</i>	335
<i>opisthophthalmus</i>	115	<i>reddingi</i>	335
<i>opisthophthalmus</i>	115	<i>Orthopsetta</i>	218
<i>opisthophthalmus</i>	115	<i>Orthostichus</i>	331
<i>opisthophthalmus</i>	115	<i>maculicauda</i>	331
<i>opisthophthalmus</i>	115	<i>Orthogoriscus alexandrinii</i>	503
<i>opisthophthalmus</i>	115	<i>analis</i>	503
<i>opisthophthalmus</i>	115	<i>batturii</i>	503
<i>opisthophthalmus</i>	115	<i>blochii</i>	503
<i>opisthophthalmus</i>	115	<i>elegans</i>	503
<i>opisthophthalmus</i>	61	<i>ghini</i>	503
<i>opisthophthalmus</i>	61	<i>lunaris</i>	503
<i>opisthophthalmus</i>	502	<i>oculeatus</i>	503
<i>opisthophthalmus</i>	498	<i>redi</i>	503
<i>orbignianus</i> , <i>Exocoetus</i>	200	<i>retali</i>	503
<i>orbignyanus</i> , <i>Conger</i>	79	<i>rondeletti</i>	503
<i>Orbis laevis variegatus</i>	499	<i>solaris</i>	503
<i>Orbis</i> , <i>Cyclopterus</i>	555	<i>Orthragus</i>	503
<i>Eumicrotremus</i>	508	<i>Oryzias</i>	260
<i>orbitalis</i> , <i>Macrourus</i>	207	<i>subulatus</i>	260
<i>Macrurus</i>	206	<i>osbeckii</i> , <i>Trachinus</i>	310
<i>orbitalis</i> , <i>Macrurus</i>	336	<i>Osbeckia</i>	495
<i>Orca</i> , <i>Notropis</i>	126	<i>scripta</i>	495
<i>Orcella</i>	126	<i>osborni</i> , <i>Liparis</i>	400
<i>Orcella</i>	126	<i>Typhlichthys</i>	195
<i>nasas</i>	126	<i>osborni</i> , <i>Sciaenops</i>	547
<i>Orcella</i>	126	<i>oscitans</i> , <i>Zestis</i>	347
<i>Orcini</i> , <i>Brama</i>	265	<i>oscula</i> , <i>Apocope</i>	141
<i>Orcula</i>	126	<i>Netuma</i>	149
<i>Orcutti</i> , <i>Phoxinus</i>	126	<i>Sciaenops</i>	352
<i>Tigoma</i>	120	<i>osculatili</i> , <i>Labrax</i>	307
<i>Oreynus</i>	260	<i>osculatili</i> , <i>Holocentrus</i>	236
<i>subulatus</i>	260	<i>osculus</i> , <i>Argyreus</i>	141
<i>ordnatus</i> , <i>Chirus</i>	374	<i>Arius</i>	149
<i>ordnatus</i>	411	<i>Holocentrus</i>	236
<i>ordnatus</i>	113	<i>Opsopæodus</i>	115
<i>oregonensis</i> , <i>Cyprinus</i> (<i>Leuciscus</i>)	114	<i>Osmeridae</i>	66
<i>Psychocheilus</i>	114	<i>osmeriformis</i> , <i>Coregonus</i>	62
<i>Psychocheilus</i>	122	<i>Leucichthys</i>	62
<i>Psychocheilus</i>	122		

List of scientific names—Continued

	Page		Page
<i>osmerinus</i> , <i>Hybognathus</i>	143	<i>Otrynter</i>	336
<i>Osmerus</i>	67	<i>caprinus</i>	336
<i>abbotti</i>	67	<i>otrynter</i> , <i>Caranx</i>	274
<i>albatrossis</i>	67	<i>otsego</i> , <i>Salmo</i>	64
<i>albidus</i>	163	<i>ouachita</i> , <i>Alvordius</i>	284
<i>attenuatus</i>	67	<i>Etheostoma</i> (<i>Hadropterus</i>).....	284
<i>dentex</i>	67	<i>ouananiche</i> , <i>Salmo</i>	56
<i>elongatus</i>	67	<i>Salmo salar</i>	56
<i>lemniscatus</i>	163	<i>ouatalibi</i> , <i>Serranus</i>	309
<i>micraron</i>	66	<i>ovale</i> , <i>Acutomentum</i>	366
<i>mordeux</i>	67	<i>Syacium</i>	218
<i>abbotti</i>	67	<i>ovalis</i> , <i>Hemirhombus</i>	218
<i>spectrum</i>	67	<i>Sebastes</i>	366
<i>oligodon</i>	68	<i>ovicephalus</i> , <i>Sparus</i>	338
<i>sargenti</i>	67	<i>oviformis</i> , <i>Chetodon</i>	358
<i>spectrum</i>	67	<i>ovigerum</i> , <i>Bathypasma</i>	401
<i>thalichthys</i>	67	<i>ovinus</i> , <i>Esox</i>	181
<i>viridescens</i>	67	<i>ovis</i> , <i>Sargus</i>	338
<i>Ophiodon</i>	243	<i>Ovoides</i>	499, 500
<i>pellucidus</i>	244	<i>Ovum</i>	499
<i>osseus</i> , <i>Esox</i>	36	<i>Oxybeles</i>	486
<i>Lepisosteus</i>	36	<i>oxybrachium</i> , <i>Sparisoma</i>	432
<i>Ostariophysi</i>	45	<i>oxybrachius</i> , <i>Scarus</i>	432
<i>ostentum</i> , <i>Careproctus</i>	402	<i>Oxychætodon</i>	359
<i>osteichthys</i> , <i>Echeneis</i>	450	<i>Oxycoctus</i>	391
<i>Rhombichirus</i>	450	<i>acuticeps</i>	391
<i>osteosticta</i> , <i>Trygon</i>	29	<i>Oxygeneum</i>	113
<i>Ostichthys</i>	234	<i>pulverulentum</i>	113
<i>trachypomus</i>	234	<i>Oxyjulis</i>	428
<i>Ostorhynchus</i>	295	<i>californicus</i>	428
<i>Ostracidae</i>	496	<i>Oxylabrax</i>	305
<i>Ostracion</i>	496	<i>Oxylebiidae</i>	374
<i>bicaudalis</i>	497	<i>Oxylebius</i>	374
<i>boops</i>	503	<i>pictus</i>	374
<i>clippertonense</i>	496	<i>Oxyloricaria</i>	162
<i>concentriatus</i>	496	<i>citirensis</i>	162
<i>gronovii</i>	497	<i>dariensis</i>	162
<i>guineensis</i>	497	<i>panamensis</i>	162
<i>lenticulosum</i>	496	<i>Oxyodontichthys</i>	87
<i>lister</i>	497	<i>brachyurus</i>	88
<i>punctatum</i>	496	<i>limbatus</i>	88
<i>punctatus</i>	496	<i>macrurus</i>	88
<i>quadricornis</i>	497	<i>oxyptera</i> , <i>Corvina</i>	320
<i>sexocornutus</i>	497	<i>Oxyrhina</i>	19
<i>trigonus</i>	497	<i>dekayi</i>	19
<i>triqueter</i>	496	<i>gomphodon</i>	19
<i>undulatus</i>	497	<i>oxyrhynchus</i> , <i>Acipenser</i>	34
<i>valei</i>	497	<i>Carcharias</i>	15, 16
<i>Ostracum</i>	496	<i>Tetrodon</i>	500
<i>expansum</i>	497	<i>oxyrinchus</i> , <i>Isurus</i>	19
<i>tricornis</i>	497	<i>Oxyurus</i>	79
<i>Ostracoderma</i>	496	<i>oxyurus</i> , <i>Lepisosteus</i>	37
<i>otarius</i> , <i>Lepidosteus</i>	37	<i>Nomeus</i>	268
<i>Othonops</i>	447	<i>Oxyzygonectes</i>	179
<i>ens</i>	447	<i>balboæ</i>	179
<i>othonops</i> , <i>Perkinsia</i>	46	<i>dovii</i>	179
<i>othonopterus</i> , <i>Cynoscion</i>	355	<i>Ozadura</i>	503
<i>Otolithidae</i>	353	<i>ozarcanus</i> , <i>Hybopsis</i>	135
<i>Otolithus albus</i>	356	<i>Notropis</i>	135
<i>californiensis</i>	356	<i>Ozodura orsini</i>	503
<i>carolinensis</i>	356	<i>pachycephalus</i> , <i>Fundulus</i>	174
<i>cayennensis</i>	356	<i>Lagocephalus</i>	497
<i>drummondi</i>	356	<i>Tetrodon</i>	497
<i>jamaicensis</i>	356	<i>pachygaster</i> , <i>Chelichthys</i>	499
<i>leirarchus</i>	356	<i>Tetrodon</i> (<i>Chelichthys</i>).....	499
<i>margalema</i>	356	<i>Pachygnatha</i>	492
<i>microlepidotus</i>	356	<i>Pachygnathus</i>	492
<i>microps</i>	356	<i>Pachylabrus</i>	411
<i>nebulosus</i>	356	<i>variegatus</i>	411
<i>nothus</i>	356	<i>pachylepis</i> , <i>Atherinichthys</i>	249
<i>obliquatus</i>	356	<i>Thyrinops</i>	249
<i>reticulatus</i>	356	<i>Pachynathus</i>	492
<i>rhomboidalis</i>	354	<i>Pachypops</i>	349
<i>squamipinnis</i>	356	<i>lurææ</i>	349
<i>stolzmanni</i>	356	<i>pachypus</i> , <i>Cottus</i>	386
<i>thalassinus</i>	355	<i>Pachyurus</i>	89
<i>tesera</i>	354	<i>pacificæ</i> , <i>Belone</i>	197
<i>vieregens</i>	356	<i>pacifici</i> , <i>Batrachoides</i>	487
<i>Otophidium</i>	485	<i>Batrachus</i>	487
<i>galeoides</i>	485	<i>Conodon</i>	331
<i>omosticta</i>	485	<i>Paraconodon</i>	331
<i>scrippsii</i>	485	<i>pacificum</i> , <i>Diplectrum</i>	318
<i>taylori</i>	485	<i>pacificus</i> , <i>Argyreus</i>	276
<i>welshi</i>	485	<i>Artediellus</i>	377
<i>otophorus</i> , <i>Eupomacentrus</i>	414	<i>Bathylagus</i>	69
<i>Pomacentrus</i>	414		

List of scientific names—Continued

	Page		Page
<i>pacificus</i> , <i>Gastrostomus</i>	95	<i>panamensis</i> , <i>Caranx</i>	273
<i>Glyptocephalus</i>	228	<i>Citharichthys</i>	221
<i>Larimus</i>	344	<i>Engraulis</i>	50
<i>Letharchus</i>	85	<i>Evermannia</i>	445
<i>Lobotes</i>	323, 324	<i>Hypessobrycon</i>	97
<i>Lycodes</i>	474	<i>Loricaria</i>	162
(<i>Lycodopsis</i>).....	474	<i>Menticirrhus</i>	351
<i>Lycodopsis</i>	474	<i>Microleotris</i>	437
<i>Mesoprius</i>	325	<i>Muraena</i>	91
<i>Microstomus</i>	228	<i>Odontognathus</i>	45
<i>Psenes</i>	269	<i>Oxyloricaria</i>	162
<i>Salmo</i> (<i>Mallotus</i>).....	66	<i>Panamichthys</i>	187
<i>Thaleichthys</i>	66, 67	<i>Parapsettus</i>	359
<i>Thynnus</i>	260	<i>Petrometopon</i>	308
<i>Tylosurus</i>	197	<i>Plabucina</i>	99
<i>Verrugato</i>	324	<i>Prapichthys</i>	187
<i>padangensis</i> , <i>Gobius</i>	440	<i>Pristigaster</i> (<i>Odontognathus</i>).....	45
<i>paetulus</i> , <i>Citharichthys</i>	218	<i>Rabula</i>	91
<i>pagei</i> , <i>Etheostoma</i>	292	<i>Rheneis</i>	334
<i>Nivicola</i>	292	<i>Serranus</i>	308
<i>Pagellus calanmus</i>	336	<i>Sola</i>	230
<i>humilis</i>	337	<i>Tetraodonpterus</i>	96
<i>microps</i>	336, 337	<i>Umbra</i>	351
<i>nulteri</i>	337	<i>Panamichthys</i>	187
<i>orbitalis</i>	336	<i>panamensis</i>	187
<i>penna</i>	336, 337	<i>pandionis</i> , <i>Apogon</i>	296
<i>Pagrus</i>	337	<i>Emblematis</i>	464
<i>pagrus</i>	337	<i>Xystamia</i>	296
<i>vulgaris</i>	337	<i>pandora</i> , <i>Clinostomus</i>	120
<i>paeris</i> , <i>Pagrus</i>	337	<i>panduratus</i> , <i>Leiobatus</i>	23
<i>Sparus</i>	337	<i>pantosa</i> , <i>Scorpaena</i>	371
<i>Pajellus caninus</i>	336	<i>pantherina</i> , <i>Murenophis</i>	93
<i>Palamita</i>	259	<i>Opipoma</i>	374
<i>palearis</i> , <i>Lycodes</i>	475	<i>pantherinus</i> , <i>Cestracion</i>	10
<i>Palinurichthys</i>	267	<i>Ichthyophis</i>	94
<i>perciiformis</i>	268	<i>Pseudoroides</i>	159
<i>Palinurus</i>	267	<i>Pantosteus</i>	104
<i>palladius</i> , <i>Labrus</i>	279, 302	<i>arion</i>	104
<i>pallasi</i> , <i>Molacanthus</i>	503	<i>colubianus</i>	165
<i>Octogrammus</i>	373, 374	<i>delianus</i>	104
<i>Pallasi</i>	503	<i>jordan</i>	104
<i>Pallasi</i>	503	<i>lahontan</i>	165
<i>pallasi</i>	503	<i>platyrrhynchus</i>	104
<i>pallasi</i> , <i>Clupea</i>	41	<i>santianae</i>	104
<i>Pleuronectes</i>	226	<i>virens</i>	105
<i>Pallasina</i>	394	<i>parabotostomatus</i> , <i>Myrichthys</i>	85
<i>aix</i>	394	<i>panuco</i> , <i>Gambusia</i>	186
<i>barbata</i>	394	<i>parale</i> , <i>Diodon</i>	144
<i>pallida</i> , <i>Aldrovandia</i>	75	<i>paralichthys</i> , <i>Canistius</i>	488
<i>Echeiopsis</i>	449	<i>Gobiosoma</i>	488
<i>Lepomis</i>	298	<i>papillifera</i> , <i>Forbesella</i>	134
<i>Morone</i>	307	<i>papilliferus</i> , <i>Chologaster</i>	134
<i>pallidus</i> , <i>Bodianus</i>	345	<i>papilio</i> , <i>Mellets</i>	380
<i>Catostomus</i>	104	<i>papillosum</i> , <i>Moxostoma</i>	169
<i>Fundulus</i>	176	<i>Syacium</i>	218
<i>Labrus</i>	301	<i>papillosus</i> , <i>Barbulifer</i>	446
<i>Lepomis</i>	299	<i>Pleuronectes</i>	218
<i>Leucostomus</i>	117	<i>Ptychopterus</i>	109
<i>Pinelochus</i>	152	<i>Paralichthys</i>	418
<i>Platycephalus</i>	136	<i>gulosus</i>	418
<i>Pomotis</i>	301, 302	<i>Parichthys</i>	457
<i>Salmo</i>	59	<i>chaperi</i>	457
<i>Xystroplites</i>	302	<i>Paracanthodon</i>	331
<i>palmipes</i> , <i>Trigla</i>	407	<i>cristatus</i>	331
<i>paloma</i> , <i>Trachinotus</i>	277	<i>donn</i>	332
<i>Palometa</i>	266	<i>pacifici</i>	331
<i>media</i>	267	<i>Paradiodon</i>	301
<i>palometa</i>	267	<i>paradoxa</i> , <i>Garmannia</i>	445
<i>simillima</i>	266	<i>paradoxus</i> , <i>Gobius</i>	445
<i>snyderi</i>	267	<i>Psychrolutes</i>	392
<i>palometa</i> , <i>Chorinemus</i>	278	<i>Stylophthalmus</i>	71
<i>Chlorophthalmus</i>	278	<i>Paradundulus</i>	182
<i>Palometa</i>	267	<i>Paragamusia</i>	184
<i>Trachinotus</i>	267	<i>Paragonus</i>	394
<i>Trachinotus</i>	274	<i>Paradiodon</i>	161
<i>palustris</i> , <i>Poecilichthys</i>	294	<i>typus</i>	161
<i>Pammelas</i>	267	<i>Parajuh</i>	426
<i>pammelas</i> , <i>Melanostigma</i>	478	<i>Paralichthys</i>	317
<i>panpanus</i> , <i>Trachinotus</i>	276	<i>clathratus</i>	317
<i>panamense</i> , <i>Pristipoma</i>	333, 334	<i>humeralis</i>	317
<i>panamensis</i> , <i>Elurichthys</i>	148	<i>maculato-auratus</i>	317
<i>Anchoviella</i>	50	<i>melanifer</i>	317
<i>Antherinella</i>	219	<i>(Paralichthys) dewegeri</i> , <i>Serranus</i>	319
<i>Azevia</i>	221	<i>Paralichthys</i>	165
<i>Bass</i>	148	<i>barbatulus</i>	165
<i>Bascanichthys</i>	86	<i>borealis</i>	165

List of scientific names—Continued

	Page		Page
Paralepis coregonoides.....	165	Parartedius.....	377
coruscans.....	165	bankinsoni.....	377
intermedius.....	165	Parascaphirhynchus.....	35
paralepis, Coregonus.....	165	albus.....	35
Paralichthyidae.....	222	Parascorpana.....	370
Paralichthys.....	223	Paraserranus.....	318
aestuarius.....	224	parasiticus, Simenchelys.....	78
albigutta.....	224	Parasphyrapops.....	297
albiguttus.....	224	atrimanus.....	297
brasiliensis.....	224	Parastrolytes.....	376
californicus.....	223	notospilotus.....	376
dentatus.....	224	Paratractus.....	272
lethostigmus.....	224	caballus.....	272
maculosus.....	223	crysos.....	272
magdalenæ.....	223	Parauchenipterus.....	159
oblongus.....	224	pardale, Lepophidium.....	485
ommatum.....	224	Leptophidium.....	485
ophryas.....	224	pardalis, Monacanthus.....	493
sinaloæ.....	224	Mycteroperca.....	315
squamilentus.....	224	Xystroperca.....	315
woolmani.....	224	pardus, Batrachus tau.....	487
Paraliparis.....	404	Opsanus.....	487
albescens.....	404	Parhiphippus.....	358
angustifrons.....	405	Parhiphiphelus.....	315
attenuatus.....	404	acutirostris.....	315
bathybii.....	404	Parques.....	353
caudatus.....	404	acuminatus.....	353
cephalus.....	404	pulcher.....	353
copei.....	405	punctatus.....	353
dactylosus.....	404	umbrosus.....	353
deani.....	404	viola.....	353
fimbriatus.....	404	Parexocetus.....	200
garmani.....	405	mesogaster.....	200
grandiceps.....	404	pargus, Mesoprion.....	325
holomelas.....	404	Paricellinus.....	375
latifrons.....	405	hopliticus.....	375
liparinus.....	405	thoburni.....	375
membranaceus.....	404	parietalis, Coliscus.....	145
mento.....	404	parilis, Ophichthus.....	88
rosaceus.....	404	Ophisurus.....	88
ulochir.....	405	parismina, Brachyrhaphis.....	187
parallelus, Centroponus.....	306	Gambusia.....	187
Embryx.....	474	parkei, Salmo.....	61
Paralongchurus.....	351	parma, Heros.....	419
goodei.....	351	Parapetenia.....	419
petersi.....	351	parmatus, Setarches.....	372
Paramia.....	296	parmifera, Raja.....	26
paranasimos, Acipenser (Huso).....	35	Parodon dariensis.....	100
Paraneotriplus.....	423	piracicabæ.....	100
bulleri.....	423	Parophrys.....	225
Paranotropsis.....	125	ayresi.....	225
arioninus.....	125	hubbardi.....	226
jejunus.....	125	ischyrus.....	226
megalops.....	125	vetulus.....	225, 226
seabriceps.....	125	parovanus, Myloleucus.....	121
Paranthias.....	320	parra, Diabasis.....	329
furcifer.....	320	Hæmulon.....	329
Parapetenia.....	418	parra, Albula.....	40
adspersa.....	418	Brama.....	426
alfari.....	419	Chætodon.....	361
bartoni.....	419	Clepticus.....	426
beani.....	419	Exocetus.....	202
centralis.....	419	parraianus, Monacanthus.....	494
dovii.....	418	parrii, Lycocara.....	478
friedrichstahli.....	418	Ophidium.....	478
istiana.....	418	parryi, Rhamdia.....	158
labridens.....	419	partitus, Eupomacentrus.....	414
managuense.....	418	Pomacentrus.....	414
mento.....	419	paru, Chætodon.....	360
motaguensis.....	418	Pepilus.....	266
multifasciata.....	418	Pomacanthus.....	360
nigricans.....	419	Stromateus.....	266
parma.....	419	Parupeneus.....	343
salvini.....	418	parva, Anchovia.....	49
steindachneri.....	419	Anchoviella.....	49
tenuis.....	419	Echeneis.....	449
tetracantha.....	419	Lucania.....	175
cinta.....	419	Pleuronectes satis.....	217
grisea.....	419	parviceps, Lycodapus.....	478
lata.....	419	parvidens, Moxostoma.....	110
torralbasi.....	419	parvipinna, Etheostoma.....	292
tramaculata.....	420	parvipinnis, Ancyrodon.....	353
uropthalma.....	418	brevis, Fundulus.....	176
Parapsettus.....	359	Cynoscion.....	356
panamensis.....	359	Dicotilus.....	261

List of scientific names—Continued

	Page		Page
parvipinnis, Eriseion.....	356	pelamides, Scomber.....	258
Fundulus.....	176	pelamidis, Rhynchichthys.....	235
Hesperoleucus.....	122	pelamis, Katsuwonus.....	258
Isoptisthus.....	353	Scomber.....	258
Ptux.....	261	pelamitus, Scomber.....	259
parvula, Clupea.....	41, 42	Pelamys.....	259
parvulus, Myoxocephalus.....	387	chiliensis.....	259
parvus, Cottopsis.....	383	lineolata.....	259
Cyprinodon.....	175	orientalis.....	259
Gobius.....	439	pelegrinus, Squalus.....	20
Rhinogobius.....	439	Pellona.....	44
Sebastes ruber.....	398	bleekeriana.....	45
Upeneus.....	343	orbignyana.....	44
passan, Apteronotus.....	101	pellucida, Salmoperca.....	214, 215
Passer lineis transversis notatus.....	230	pellucidum, Etheostoma.....	288
passer, Centropyge.....	361	Ophidium.....	79
Holacanthus.....	361	pellucidus, Acus.....	244
Pastinaca.....	28	Ophyolax.....	243, 244
hastata.....	28	Pleurolepis.....	288
marina.....	29	Psenes.....	269
olivacea.....	28	Thyris.....	220
pastinaca, Raja.....	28	Vigil.....	288
Pastinachus.....	28	Pelodichthys.....	155
centrourus.....	28	Peloria.....	217
schmardæ.....	28	heckeli.....	217
torrei.....	28	pelta, Chelmo.....	359
patagonica, Maynea.....	476	peltastes, Lepomis.....	300
patana, Macraron.....	99	peltatum, Etheostoma.....	283
patao, Gerres.....	342	peltatum, Alvordius.....	283
patatus, Julis.....	426	Turdus cinereus.....	341
patris, Acanthoecottus.....	389	Pempheridae.....	323
patronus, Brevoortia.....	44	Pempheris.....	323
patruelis, Gambusia.....	185	mexicana.....	323
Heterandria.....	184	mexicanus.....	323
pattersoni, Troglodanis.....	155	mülleri.....	323
pateuaro, Chirostoma.....	259	poeyi.....	323
paucidens, Leurynnis.....	474	schomburgkii.....	323
Salmo.....	55	tonoa.....	323
pauciporus, Ophichthys.....	88	peninsula, Bascanichthys.....	86
pauciradiatus, Callionymus.....	450	Callichelys.....	86
Pseudoxiphophorus.....	188	Chirostoma.....	217
paucispinis, Sebastes.....	364	Menidia.....	217
Sebastodes.....	364	peninsula atrimentis, Menidia.....	217
pavo, Xyrichthys.....	430	penis, Calamus.....	337
pavonaceus, Herichthys.....	422	Pagellus.....	337
Heros.....	422	penanti, Argentina.....	73
pavonina, Limia.....	191	Maurolicus.....	73
pavoninus, Adonis.....	460	Squalus.....	19
Cyclopterus.....	397	peninsula, Calamus.....	336
Iniistius.....	430	Penopus.....	482
Xyrichthys.....	430	macdonaldi.....	482, 483
paillolides, Lycodes.....	476	penicula, Harengula.....	43
paillus, Lycenchelys.....	476	penshinensis, Salmo.....	56
Lycodes.....	476	pentacantha, Asterothea.....	396
peckianus, Syngnathus.....	242	pentacanthus, Bodianus.....	235
peckii, Syngnathus.....	242	Centarchus.....	303
pectinatus, Centropomus.....	306	Labrus.....	424
Pristis.....	23	Nemichirus.....	396
pectinifer, Clinus.....	459	Pentacnemus.....	256
Leucidius.....	123	quinquarius.....	256
pectoralis, Albatross.....	294	pepus, Luciopeca.....	282
Bathyonus.....	482	pepo, scorius.....	433
Bathypetrolis.....	166	Pepilus.....	266
Dactyloscopus.....	454	peru.....	266
Dallia.....	172	snyderi.....	267
Harpe.....	425	perreatus, Pleuronectes.....	226
Hemigaleus.....	14	Pereca.....	281
Macrourus.....	204	aberrans.....	316
(Malacocephalus).....	204	acuta.....	281
Nematistius.....	280	albarnus.....	350
Nematonus.....	482	americanus.....	281, 307
Prionotus.....	407	apoda.....	325
miles.....	407	ascensionis.....	325
Pedallion.....	503	atlantica.....	317
pedaliota, Bonapartia.....	72	chrysoptera.....	307
pedalotus, Zaphrotus.....	72	chrysoptera.....	335
pedicellaris, Sciaenodus.....	483	chrysopterus.....	335
Pediculatus.....	504	flavescens.....	281
pedimacula, Centropomus.....	306	flavopurpureus.....	310
Pegedictis.....	383, 385	fluvialis.....	281
lethalope.....	383, 385	gibbosa.....	392
Pelax agulla.....	195	formosa.....	318, 330
pelagicus, Callionymus.....	409	furcata.....	349
Neotoliparis.....	402	furca.....	317
Scomber.....	264	gibbosa.....	392, 329
Syngnathus.....	219, 242	gigas.....	310

List of scientific names—Continued

	Page		Page
<i>Perca gracilis</i>	281	<i>Peristedion brevirostre</i>	405
<i>granulata</i>	281	<i>crustosum</i>	406
<i>guttata</i>	308, 311	<i>gracile</i>	405
<i>guttatus</i>	308	<i>longispathum</i>	405
<i>immaculata</i>	307	<i>malmarmat</i>	405
<i>juba</i>	332	<i>micronemus</i>	406
<i>lancoolata</i>	352	<i>miniaturum</i>	405
<i>lophar</i>	280	<i>platycephalum</i>	406
<i>lobbina</i>	305	<i>Peristedium barbiger</i>	406
<i>maculata</i>	310	<i>crustosum</i>	406
<i>marina</i>	363	<i>longispatha</i>	405
<i>capite striato</i>	330	<i>platycephalum</i>	406
<i>cauda nigra</i>	330	<i>Peristethus</i>	405
<i>gibbosa cinerea</i>	329	<i>brevirostre</i>	405
<i>rubra</i>	236	<i>peristethus, Podothecus</i>	394
<i>sectatrix</i>	340	<i>Perkinsia</i>	46
<i>melanura</i>	330	<i>othonops</i>	46
<i>minima</i>	287	<i>perlutum, Holocentrum</i>	236
<i>mitchilli</i>	307	<i>perlongus, Leptoconger</i>	82
<i>alternata</i>	307	<i>Neoconger</i>	82
<i>interrupta</i>	307	<i>perniger, Cuius</i>	437
<i>mucronata</i>	308	<i>Eleotris</i>	437
<i>nigra</i>	267	<i>Peropus</i>	382
<i>nobilis</i>	333	<i>perplexus, Cottus</i>	384
<i>norvegica</i>	363	<i>perrico, Pseudoscarus</i>	435
<i>notata</i>	281	<i>Searus</i>	435
<i>ocellata</i>	348	<i>Perro colorado</i>	425
<i>(Percina) nebulosa</i>	283	<i>perrotti, Pristis</i>	23
<i>philadelphica</i>	318	<i>personata, Eviota</i>	438
<i>punctata</i>	309, 345	<i>personatus, Annmolytes</i>	451
<i>pusilla</i>	295	<i>perspicabilis, Embiotoca</i>	411
<i>rhomboidalis</i>	338	<i>perspicillaris, Tetraodon</i>	500
<i>robusta</i>	311	<i>perspicillum, Lycodes</i>	474
<i>rufa</i>	236	<i>perspicuus, Hyborhynchus</i>	145
<i>salmonea</i>	282	<i>perthecata, Anchoviella</i>	47
<i>saltatrix</i>	280	<i>pertheccatus, Stolephorus</i>	47
<i>saxatilis</i>	307	<i>peruanus, Anthias (Hemianthias)</i>	322
<i>sectatrix</i>	340	<i>Hemianthias</i>	322
<i>septentrionalis</i>	307	<i>peruigie, Limia</i>	191
<i>serrato-granulata</i>	281	<i>Platycephalus</i>	191
<i>stellio</i>	310	<i>peruvianus, Diapterus</i>	342
<i>striata</i>	331	<i>Galeichthys</i>	149
<i>tota</i>	310	<i>Gerres</i>	342
<i>trifurca</i>	318	<i>Pescador</i>	505
<i>undulata</i>	349	<i>Petalosoma</i>	193
<i>unicolor</i>	321	<i>cultratum</i>	193
<i>unimaculata</i>	338	<i>Petalurichthys</i>	193
<i>varia</i>	317	<i>petenensis, Astyanax</i>	97
<i>variabilis</i>	365	<i>Melepta</i>	47
<i>venenosa</i>	313	<i>Mollinesia</i>	192
<i>ventre luteo</i>	302	<i>Pimelodus</i>	158
<i>vitrea</i>	282	<i>Pocilia</i>	192
<i>percellens, Raja</i>	23	<i>Rhamdia</i>	158
<i>Rhinobatos</i>	23	<i>Signalosa</i>	47
<i>Percesoces</i>	246	<i>Tetragonopterus</i>	97
<i>Percidae</i>	281, 282	<i>Petenia</i>	423
<i>perciformis, Coryphæna</i>	267, 268	<i>splendida</i>	423
<i>Palinurichthys</i>	268	<i>petersi, Centropholis</i>	266
<i>Percina</i>	282	<i>Paralanchurus</i>	351
<i>bimaculata</i>	283	<i>petimba, Fistularia</i>	245
<i>caprodes</i>	283	<i>Petrometopon</i>	308
<i>carbonaria</i>	283	<i>cruentatus</i>	308
<i>manitou</i>	283	<i>coronatus</i>	308
<i>nebulosa</i>	282	<i>panamensis</i>	308
<i>rex</i>	283	<i>Petromyzon</i>	8
<i>zebra</i>	283	<i>americanus</i>	8
<i>(Percina) nebulosa, Perca</i>	283	<i>appendix</i>	9
<i>percobromus, Alburnellus</i>	124	<i>argenteus</i>	9
<i>percoides, Agonostoma</i>	254	<i>(Artedi)</i>	8
<i>Dajaus</i>	254	<i>astori</i>	10
<i>Percomorpha</i>	246	<i>ayresii</i>	10
<i>Percopsidae</i>	214	<i>(Bathymyzon) bairdii</i>	8
<i>Percopsis</i>	214	<i>bellium</i>	9
<i>guttatus</i>	214, 215	<i>borealis</i>	10
<i>hammondii</i>	215	<i>ciliatus</i>	10
<i>omiscornycus</i>	215	<i>epihexodon</i>	10
<i>peregrinus, Leptopus</i>	215	<i>fluvialis</i>	10
<i>perezi, Platypodon</i>	16	<i>lamoteni</i>	10
<i>perfasciata, Anchoviella</i>	47	<i>lividus</i>	10
<i>perfasciatus, Engraulis</i>	47	<i>marinus</i>	8
<i>periscopus, Gadus</i>	209	<i>dorsatus</i>	9
<i>Perissias</i>	220	<i>nigricans</i>	8
<i>leptopterus</i>	220	<i>nigrum</i>	9
<i>Peristediidae</i>	405	<i>plumbeus</i>	10
<i>Peristedion</i>	405	<i>tridentatus</i>	9, 10
<i>barbiger</i>	406	<i>Petromyzonidae</i>	8

List of scientific names—Continued

	Page		Page
Petronason.....	433	Photogenis, scabriceps.....	125
petrosus, Brycon.....	98	spilopterus.....	129
Mugil.....	253	stigmaturus.....	129
Serranus.....	313	telescopus.....	124
petus, Acanthocybium.....	256	photogenis, Notropis.....	123, 128
Cybium.....	256	Squalius.....	123
pfeifferi, Muræna.....	93	Photonectes.....	70
Pfrittle.....	121	gracilis.....	70
neogaea.....	121	Phoxaegyrea.....	247
phænna, Hybopsis.....	132	dayi.....	247
Phaenodon.....	71	Phoxinus clevelandi.....	118
ringens.....	71	flammeus.....	121
Phaethonichthys.....	264	milnerianus.....	121
tuberculatus.....	264	neogaeus.....	121
phaeton, Pristigaster.....	45	orcutti.....	120
Serranus.....	309	phoxocephalum, Cynoscion.....	356
phalæna, Umbriana.....	350	Etheostoma.....	284
Phalangistes.....	395	phoxocephalus, Alvordius.....	284
Joricatus.....	394	Atractoscion.....	356
phaleratus, Esox.....	173	phrynoides, Eumicrotornus.....	398
Phallichthys.....	190	Phthierichthys.....	449
amates.....	190	tropicus.....	449
pittieri.....	190	Phycis.....	212, 213
Phanerodon.....	411	chesteri.....	213
atripes.....	411	citratus.....	212
furcatus.....	411	dekeyi.....	213
Pharyngognathus.....	421	ecoli.....	212
phasganorus, Notacanthus.....	76	floridanus.....	213
phasma, Careproctus.....	402	marginalatus.....	212, 213
Phenacobius.....	142	rostratus.....	213
catostomus.....	142	timæa.....	212
mirabilis.....	142	yanchei.....	213
scopifer.....	142	phycis, Leta.....	211
teretulus.....	142	Phycocretes.....	478
liosternus.....	142	latitans.....	478
uranops.....	142	suspectus.....	478
phenacobius, Hybopsis.....	134	Physiculus.....	211
Notropis.....	134	dalwigkii.....	211
Phenagoniates.....	95	fulvus.....	212
macrolepis.....	95	kaupi.....	211
wilsoni.....	95	longipes.....	212
phenax, Apomotis.....	299	nematopus.....	212
Mycteroperca.....	315	rastrelliger.....	212
falcata.....	315	physignathus, Ceratichthys.....	136
philadelphica, Perca.....	318	Platygnathus.....	136
philadelphicus, Triloburus.....	318	Physostomi.....	39
philonips, Cottus.....	384	Phytichthys.....	469
Philypnus.....	135	chirus.....	469
lateralis.....	436	versicolor.....	469
phlebotomus, Acanthura.....	121	Phiburnia.....	99
phlegenthitis, Clinostomus.....	121	erythrinoides.....	99
lotichthys.....	121	feste.....	99
phlegenthitis, Clinostomus.....	121	panamensis.....	99
phlox, Boleosoma.....	287	picarti, Hemirhamphus.....	198
Thaenichthys.....	287	picus, Balte.....	493
Phobator.....	359	Melichthys.....	493
phobus, Pristigaster.....	319	picardi, Jolurus.....	254
Serranus.....	319	Picorellus.....	172
Pholidæ.....	466	pieta, Murena.....	93
Pholidichthys.....	465	Scorpaena.....	370
anguilliformis.....	465	Sidera.....	93
leucostoma.....	465	picturata, Alutera.....	485
Pholis.....	461, 467	Gambusia.....	185
carolinus.....	461	picturatus, Gymnothorax.....	91
fasciatus.....	468	Syngnathus.....	241
gilli.....	468	pieta, Chaenax.....	506
gunnellus.....	467	Chironectes.....	504
novemlineatus.....	462	Chirus.....	374
ornatus.....	468	Eleotris.....	437
quadricarinatus.....	462	Gymnelus.....	477
subbifurcatus.....	470	Histrio.....	504
Pholis, Biennius.....	461	Iridio.....	427
Photocorynus.....	509	Julis.....	427
spiniiceps.....	509	Oxylebius.....	374
Photogenis.....	123	Sciades.....	148
atomus.....	125	Torpedo.....	27
caerulus.....	130	Urocentrus.....	467
calidus.....	136	pieta, Spilopterna spilopterna var.....	255
caeruleus.....	136	pietilla, Spilopterna.....	255
grandipinnis.....	129	pidiense, Moxostoma.....	110
leuciodus.....	124	pidiensis, Ptychostomus.....	110
leucops.....	123	pietensis, Hyphobliennius.....	462
engraulinus.....	130	piger, Symphurus.....	230
leucops.....	139	pietensis, Apegon.....	295
piptolepis.....	134	Monoprius.....	295
pyrrhionellus.....	129	pieta, Aphorichthys.....	230

List of scientific names—Continued

	Page		Page
<i>pilchardus</i> , Clupea.....	43	<i>Pimelodus</i> , marmoratus.....	154
<i>pileatus</i> , Prionotus.....	407	<i>megalops</i>	152
<i>Pileoma</i>	282	<i>micropterus</i>	157
<i>carbonaria</i>	283	<i>motaguensis</i>	157
<i>cymatogramma</i>	286	<i>natalis</i>	153
<i>semifasciata</i>	282	<i>nebulosus</i>	154, 155
<i>semifasciatum</i>	283	<i>nicaraguensis</i>	157
<i>zebra</i>	283	<i>nigricans</i>	152
<i>pilicornis</i> , Blennius.....	461	<i>notatus</i>	152
<i>Pilodietis</i>	155	<i>pallidus</i>	152
<i>limosa</i>	155	<i>petenensis</i>	158
<i>pilosa</i> , Solea.....	230	<i>platycephalus</i>	154
<i>pilosus</i> , Diodon.....	501	<i>polycaulus</i>	158
<i>Trichodiodon</i>	501	<i>pullus</i>	154
<i>pilshryi</i> , Notropis.....	124	<i>punctulatus</i>	155
<i>Pimelepterus</i>	339	<i>quelon</i>	156
<i>analogus</i>	339	<i>rigidus</i>	159
<i>bosci</i>	339	<i>rogersi</i>	158
<i>scicula</i>	340	<i>salvini</i>	157
<i>bosquii</i>	340	<i>spixii</i>	150
<i>cornubiensis</i>	268	<i>viscosus</i>	155
<i>elegans</i>	339	<i>vulgaris</i>	153
<i>flavo-lineatus</i>	339	<i>vulpeculus</i>	154
<i>incisor</i>	339	<i>vulpes</i>	152
<i>lutescens</i>	340	<i>wagneri</i>	157
<i>oblongior</i>	340	<i>Pimelometopon</i>	426
<i>ocyurus</i>	340	<i>pulcher</i>	426
<i>sandvicensis</i>	339	<i>Pimephales</i>	145
<i>Pimelode insignis</i>	155	<i>agassizii</i>	145
<i>livree</i>	156	<i>anuli</i>	146
<i>Pimelodella</i>	158	<i>confertus</i>	145
<i>chagresi</i>	158	<i>fasciatus</i>	145
<i>Pimelodidae</i>	156	<i>maculosus</i>	145
<i>Pimelodon</i>	155	<i>milesi</i>	145
<i>insignarius</i>	155, 156	<i>promelas</i>	145
<i>Pimelodus</i>	158	<i>pingeli</i> , Triglops.....	379
<i>aeueus</i>	155	<i>pinguis</i> , Pleuronectes.....	221
<i>affinis</i>	152	<i>pinima</i> , Acara.....	332
<i>ailurus</i>	153	<i>pinnata</i> , Muræna.....	78
<i>albidus</i>	150, 153	<i>pinnatus</i> , Eretmichthys.....	481
<i>antoniensis</i>	153	<i>Synaphobranchus</i>	78
<i>argentinus</i>	152	<i>pinniger</i> , Bryseteres.....	488
<i>argyrus</i>	152	<i>Enneacanthus</i>	304
<i>ascita</i>	158	<i>Gobiesox</i>	488
<i>atrarius</i>	154	<i>Rosicola</i>	365
<i>baronis-mulleri</i>	157	<i>Sebastosomus</i>	365
<i>borealis</i>	152	<i>pinnimaculatus</i> , Ailurichthys.....	148
<i>brachycephalus</i>	157	<i>Bagre</i>	148
<i>brachypterus</i>	157	<i>pinnivaria</i> , Hypoplectrus.....	321
<i>catulus</i>	154	<i>pinnivarius</i> , Hypoplectrus unicolor.....	321
<i>caudafurcatus</i>	152	<i>pinnulata</i> , Seriola.....	279
<i>chagresi</i>	158	<i>pinta</i> , Muræna.....	90
<i>clarias</i>	159	<i>pintita</i> , Muræna.....	92
<i>canosus</i>	153	<i>piptolepis</i> , Hybopsis.....	134
<i>confinis</i>	154	<i>Photogenis</i>	134
<i>conirostris</i>	156	<i>Piquitinga</i>	48
<i>cristatus</i>	158	<i>piquotianus</i> , Lepidosteus.....	37
<i>cupresoides</i>	153	<i>piquotii</i> , Amia.....	38
<i>cupreus</i>	153	<i>piraea</i> , Monacanthus.....	494
<i>cyclopum</i>	159	<i>piracicabæ</i> , Parodon.....	100
<i>dekayi</i>	153	<i>Piramutana blochii</i>	159
<i>erythroptera</i>	152	<i>macrospila</i>	159
<i>felinus</i>	153	<i>pirapeda</i> , Dactylopterus.....	409
<i>felis</i>	154	<i>Piratiapia</i>	313
<i>fureatus</i>	152	<i>pirrense</i> , Cyclopium.....	160
<i>fureifer</i>	152	<i>pirrensis</i> , Astroblepus.....	160
<i>godmani</i>	157	<i>pisavarius</i> , Ophichthys.....	85
<i>gracilis</i>	152	<i>pisecatorius</i> , Lophius.....	504
<i>graciosus</i>	152	<i>pisatrix</i> , Pseudorhamdia.....	159
<i>guatemalensis</i>	157	<i>Pisces</i>	33
<i>hammondi</i>	152	<i>pisciculus</i> , Esox.....	176
<i>houghi</i>	152	<i>Piscis viridis bahamensis</i>	432
<i>hoyi</i>	154	<i>piscis bahamensis</i> , Unicornis.....	495
<i>hypselurus</i>	157	<i>pisculentus</i> , Esox.....	176
<i>insigne</i>	155	<i>Pisodonophis</i>	86
<i>insignis</i>	156	<i>canerivorus</i>	86
<i>lateralis</i>	152	<i>daspilotus</i>	86
<i>laticaudus</i>	157	<i>guttulatus</i>	85
<i>leucoptera</i>	152	<i>Pisodontophis</i>	86
<i>lupus</i>	153	<i>pisonis</i> , Eleotris.....	436
<i>lynx</i>	153	<i>Gobius</i>	436
<i>macronema</i>	159	<i>Pisoodonophis</i>	86
<i>maculatus</i>	151, 152, 158, 159	<i>cruentifer</i>	86
<i>managuensis</i>	157	<i>oculatus</i>	85
<i>marginatus</i>	152	<i>pisquetus</i> , Caranx.....	272

List of scientific names—Continued

	Page		Page
<i>pistilliger</i> , <i>Cottus</i>	389	<i>platyrhynchus</i> , <i>Acipenser</i>	35
<i>Gymnocephalus</i>	389	<i>Scaphirhynchops</i>	35
<i>pitamba</i> , <i>Acara</i>	327	<i>platostomus</i> , <i>Cylindrosteus</i>	37
<i>Pithecomyzon</i>	108	<i>Lepisosteus</i>	37
<i>pittieri</i> , <i>Phallichthys</i>	190	<i>Platotichthys</i>	221
<i>Pocilia</i>	190	<i>chartes</i>	221
<i>pituitosus</i> , <i>Rhypticus</i>	316	<i>platyargyrea</i> , <i>Anchovia</i>	49
<i>pixanga</i> , <i>Serranus</i>	310	<i>Anchoviella</i>	49
<i>pixuma</i> , <i>Amore</i>	436	<i>platycephalum</i> , <i>Peristedion</i>	406
<i>placitus</i> , <i>Hybognathus</i>	143	<i>Peristedium</i>	406
<i>Placopharynx</i>	111	<i>Platycephalus dormitator</i>	435
<i>carinatus</i>	111	<i>platycephalus</i> , <i>Ameiurus</i>	154
<i>Plagiogrammus</i>	469	<i>Cottus</i>	387, 388
<i>hopkinsi</i>	469	<i>Megalocottus</i>	388
<i>plagioplateo</i> , <i>Eleotris capite</i>	436	<i>Noturus</i>	155
<i>Plagiostomata</i>	10	<i>Notorynchus</i>	11
<i>Plagusia</i>	230	<i>Pimelodus</i>	154
<i>lactea</i>	230	<i>Platygaster</i>	44
<i>plagusia</i> , <i>Pleuronectes</i>	231	<i>Platyglottus dispilus</i>	427
<i>Symphurus</i>	231	<i>floréalii</i>	426
<i>Plagopterus</i>	147	<i>nicholsi</i>	428
<i>argentissimus</i>	147	<i>poeyi</i>	427
<i>Plagusia</i>	230, 231	<i>Platygnathus</i>	136
<i>brasiliensis</i>	231	<i>gracilis</i>	136
<i>fasciata</i>	231	<i>pallidus</i>	136
<i>lactea</i>	230	<i>physignathus</i>	136
<i>tesselata</i>	231	(<i>Platygnathus</i>) <i>gulonellus</i> , <i>Pogonichthys</i>	136
<i>plagusia</i> , <i>Pleuronectes</i>	230, 231	<i>Platyinius</i>	328
<i>Symphurus</i>	231	<i>platyodon</i> , <i>Carcharias</i>	15
<i>Plagyodontem</i>	171	<i>Squalus</i>	15
<i>Plagyodus</i>	171	<i>Platyodon</i>	15
<i>asculapius</i>	171	<i>perezi</i>	16
<i>plana</i> , <i>Platessa</i>	227	<i>Platyodon</i>	193
<i>planci</i> , <i>Tympanichthys</i>	203	<i>conchiformis</i>	193
<i>Plancterus</i>	179	<i>dominicensis</i>	191
<i>kansei</i>	179	<i>maculatus</i>	193
<i>zebra</i>	179	<i>immaculatus</i>	193
<i>Planiceps</i> , <i>Anchirus</i>	161	<i>mentalis</i>	102
<i>Arius</i>	149	<i>perugiae</i>	191
<i>Catostomus</i>	107	<i>quizeensis</i>	182
<i>Lasiacanthus</i>	161	<i>tropicus</i>	192
<i>Netuma</i>	149	<i>variatus</i>	193
<i>planiceps</i> , <i>Netuma</i>	149	<i>platypogon</i> , <i>Arius</i>	149
<i>planifrons</i> , <i>Eupomacentrus</i>	414	<i>Netuma</i>	149
<i>Pomacentrus</i>	414	<i>Platyrhina exasperata</i>	24
<i>Planirostra</i>	36	<i>triseriata</i>	24
<i>edentula</i>	36	<i>Platyrhinidae</i>	24
<i>planus</i> , <i>Pleuronectes</i>	227	<i>Platyrhinoides</i>	24
<i>Plargyrus argentatus</i>	128	<i>triseriatus</i>	24
<i>bowmani</i>	128	<i>platyrhinus</i> , <i>Acipenser</i> (<i>Huso</i>).....	35
<i>melanocephalus</i>	145	<i>platyrhynchus</i> , <i>Carcharias</i>	15
<i>typicus</i>	128	<i>Eulamia</i>	15
<i>plargyrus</i> , <i>Rutilus</i>	128	<i>Minomus</i>	104
<i>platea</i> , <i>Branchiostoma</i>	7	<i>Pantosteus</i>	104
<i>Platessa</i>	226	<i>Platysomatichthys</i>	221
<i>bilineata</i>	226	<i>stomias</i>	221
<i>dentata</i>	222	<i>Platysomus</i>	274
<i>divinensis</i>	227	<i>micropteryx</i>	275
<i>ferruginea</i>	226, 227	<i>spixii</i>	275
<i>glabra</i>	227	<i>Platysqualus</i>	17
<i>oblonga</i>	223, 224	<i>tudes</i>	17
<i>ocellaris</i>	224	<i>Platytrichus</i>	53
<i>plana</i>	227	<i>apus</i>	53
<i>pusilla</i>	227	<i>plebeius</i> , <i>Catostomus</i>	104
<i>rostrata</i>	227	<i>Gasterosteus</i>	237
<i>platessa</i> , <i>Pleuronectes</i>	226	<i>Notolepidomyzon</i>	104
<i>platessoides</i> , <i>Hippoglossoides</i>	222	<i>plebeius</i> , <i>Mustelus</i>	13
<i>Pleuronectes</i>	222	<i>Plecotomus</i>	160
<i>Platichthys</i>	226	<i>boulengeri</i>	160
<i>rugosus</i>	226	<i>dorso dipterygio</i>	160
<i>stellatus</i>	226	<i>seminudus</i>	160
<i>umbrosus</i>	226	<i>plecostomus</i> , <i>Hypostomus</i>	160
<i>Platirostra</i>	36	<i>Loricaria</i>	160
<i>edentula</i>	36	<i>Plectobranchus</i>	468
<i>Platophrys</i>	217	<i>evides</i>	468, 469
<i>concoloratus</i>	217	<i>Plectornathus</i>	491
<i>ellipticus</i>	217	<i>plectrodon</i> , <i>Porichthys</i>	488
<i>leopoldinus</i>	218	<i>Plectromus</i>	233
<i>longatus</i>	217	<i>beani</i>	233
<i>maculifer</i>	217	<i>bispinosus</i>	233
<i>nebularius</i>	217	<i>crassiceps</i>	233
<i>ocellatus</i>	217	<i>cristiceps</i>	233
<i>spicatus</i>	217	<i>lugubris</i>	233
<i>trichopterus</i>	220	<i>minolepis</i>	233
<i>platyphrys</i> , <i>Citharusichthys</i>	219	<i>nycterinus</i>	233
<i>Platysomus</i>	24	<i>suborbitalis</i>	233

List of scientific names—Continued

	Page		Page
<i>Plectropoma accensum</i>	321	<i>Pleuronichthys guttulatus</i>	225
affine.....	321	nephelus.....	225
bovinum.....	321	ocellatus.....	225
chloropterum.....	312	ritteri.....	225
chlorurum.....	321	verticalis.....	225
crocata.....	321	pleurophthalmus, Antennarius.....	505
ephippium.....	321	pleurospilus, Girardinus.....	190
gummigutta.....	321	Pœcilistes.....	190
guttavarium.....	321	pleurostictus, Triglops.....	379
hispanum.....	308	Pleurothyris.....	74
indigo.....	321	Pliosteostoma.....	45
melanorhina.....	321	lutipinnis.....	45
monacanthus.....	313	plumatula, Calamus.....	336
multiguttatum.....	313	plumbea, Chimæra.....	33
nigricans.....	321	Dionda.....	144
puella.....	320, 321	Gambusia.....	192
vitulinum.....	321	plumbeolus, Alburnops.....	128
<i>Plectrypops</i>	236	plumbeus, Bathyalopex.....	33
retrospinis.....	236	Couesius.....	136
pleianus, Pseudoscarus.....	435	Gobio.....	136
Scarus.....	435	Petromyzon.....	10
pleii, Hemiramphus.....	199	Pseudoscarus.....	435
pleuriticus, Salmo.....	57	rubrilateralis, Couesius.....	116
Pleuracromylon.....	13	plumieranus, Caranxomorus.....	270
Pleurogrammus.....	374	plumier, Le Diodon.....	501
monopterygius.....	374	plumieri, Chætodon.....	358
<i>Pleurolepis</i>	288	Coryphæna.....	356
asprellus.....	288	Eugerres.....	343
pellucidus.....	288	Gerres.....	312, 313
<i>Pleuronectes</i>	226	Gobius.....	447
achirus.....	229	Hæmulon.....	330
americanus.....	227	Labrus.....	330
apoda.....	229	Malacanthus.....	356
aquosus.....	217	Mugil.....	253
aramaca.....	218	Polydactylus.....	256
argus.....	217	Sclæna.....	333
asper.....	227	Scomber.....	271
ciatricosus.....	227	Scomberomorus.....	257
cornutus.....	225	Scorpena.....	370
cynoglossus.....	221, 228	Sicydium.....	447
dentatus.....	224	plumierianus, Caranxomorus.....	270
diagrammus.....	226	plumierit, Polydactylus.....	256
ellipticus.....	217	pluriserialis, Narcetes.....	52
franklini.....	227	plutonia, Raja.....	26
fuscus subrotundus glaber.....	230	pluviatilis, Tetraodon.....	499
gilli.....	228	pluvius, Salmo.....	61
glabra.....	217	Pneumatophorus.....	257
glacialis.....	227	australasicus.....	258
hippoglossoides.....	221	diego.....	258
hippoglossus.....	221	grex.....	258
kitt.....	228	pneumatophorus, Scomber.....	257, 258
limanda.....	222, 226	pocattello, Catostomus.....	107
limandoides.....	222	Podager.....	341
lineatus.....	230	podas, Bothus.....	217
linguacula.....	222	Podoleptus.....	215
lunatus.....	217	podostemone, Etheostoma.....	286
maculatus.....	217	Imostoma.....	286
maculiferus.....	217	Podothecus.....	394
melanogaster.....	224	acipenserinus.....	394
microcephalus.....	228	gilberti.....	395
microstomus.....	228	peristethus.....	394
mollis.....	229	Pœcilia.....	190
oblongus.....	224	(Acropœcilia) tridens.....	190
obscurus.....	228	amates.....	190
ocellatus.....	217	boucardi.....	192
oculis etc.....	229	butleri.....	192
pallasii.....	226	catenata.....	179
papillosus.....	218	chisoyensis.....	192
perarcuatus.....	226	cœnicola.....	175
pinguis.....	221	cuneata.....	193
plagiusa.....	231	dominicensis.....	191
plagusia.....	230, 231	dovii.....	192
planus.....	227	elongata.....	130
platessa.....	226	limantouri.....	192
platessoides.....	222	lineolata.....	192
quadridens.....	228	melanogaster.....	191
quadrituberculatus.....	226	melaleuca.....	178, 185
quensell.....	228	mexicana.....	192
satis parva.....	217	multilineata.....	192
saxicola.....	228	olivacea.....	177
stellatus.....	226	petenensis.....	192
surinamensis.....	217	pittieri.....	190
<i>Pleuronectidae</i>	225	presidionis.....	189
<i>Pleuronichthys</i>	225	reticulata.....	191
cœnosus.....	225	reticulatus.....	191
decurrens.....	225	salvatoris.....	192

List of scientific names—Continued

	Page		Page
<i>Poecilia schneideri</i>	190	<i>Pogonias</i>	352
<i>sphenops</i>	192	<i>chromis</i>	352
<i>spilonota</i>	192	<i>courbina</i>	352
<i>spilurus</i>	192	<i>fasciatus</i>	352
<i>surinamensis</i>	190	<i>Pogonichthys</i>	116
<i>tenuis</i>	192	<i>argyreus</i>	116
<i>thermalis</i>	192	<i>communis</i>	136
<i>tridens</i>	190	<i>inaequilobus</i>	116
<i>vanderpolli</i>	193	<i>macroleptotus</i>	116
<i>arubensis</i>	193	(<i>Platygobio</i>) <i>gulonellus</i>	136
<i>vittata</i>	191	<i>symmetricus</i>	121
<i>vivipara</i>	190	<i>Pogonius chromis</i>	352
<i>Poecilichthys</i>	232, 289	<i>polaris</i> , <i>Blennius</i>	476
<i>artesia</i>	292	<i>Cottus</i>	388
<i>asprigenis</i>	291	<i>Lycodalepis</i>	476
<i>beani</i>	287	<i>Merlangus</i>	209
<i>borealis</i>	291	<i>Poecottus</i>	388
<i>butlerianus</i>	294	<i>Polipturus</i>	257
<i>camurus</i>	290	<i>Polistotrema</i>	8
<i>jessie</i>	291	<i>curtissimatus</i>	8
<i>mesaeus</i>	287	<i>diarrh</i>	8
<i>palustris</i>	294	<i>stouti</i>	8
<i>punctulatus</i>	292	<i>polius</i> , <i>Cheilichthys</i>	499
<i>quiescens</i>	294	<i>scorpius</i>	353
<i>rufilineatus</i>	290	<i>Tetraodon</i>	499
<i>sagitta</i>	293	<i>Pollachius</i>	209
<i>sanguifluus</i>	290	<i>chalcogrammus fucensis</i>	209
<i>saxatilis</i>	287	<i>virens</i>	209
<i>speotabilis</i>	291	<i>pollachius</i> , <i>Gadus</i>	209
<i>swinh</i>	291	<i>pollianus</i> , <i>Umbra</i>	386
<i>varianus</i>	289	<i>pollux</i> , <i>Pontinus</i>	372
<i>versicolor</i>	291	<i>polyacanthocephalus</i> , <i>Cottus</i>	387
<i>virgatus</i>	292	<i>Myoxocephalus</i>	387
<i>vitreus</i>	288	<i>Polyacanthopus</i>	76
<i>vulneratus</i>	280	<i>challengeri</i>	76
<i>zonalis</i>	280	<i>rostratus</i>	76
<i>Poecilidae</i>	184	<i>polyactis</i> , <i>Melanocetus</i>	510
<i>Poecilopsis</i>	189	<i>polyacteocephalus</i> , <i>Bryostemma</i>	166
<i>balsas</i>	189	<i>polyacteocephalus</i> , <i>Blennius</i>	466
<i>fasciata</i>	189	<i>Polyanthus</i>	229
<i>infans</i>	189	<i>polycaula</i> , <i>Rhandia</i>	158
<i>isthmensis</i>	189	<i>polycaulus</i> , <i>Pimelodus</i>	158
<i>latidens</i>	189	<i>Polygonus</i>	351
<i>occidentalis</i>	189	<i>dumathi</i>	351
<i>presidens</i>	189	<i>rathbuni</i>	351
<i>turribagensis</i>	189	<i>Polydorus</i>	351
<i>Poecilotes</i>	189	<i>dumedi</i>	351
<i>pleuroplus</i>	189	<i>Polydactylus</i>	256
<i>Poecilopichthys</i>	87	<i>opercularis</i>	256
<i>bonapartei</i>	87	<i>plumieri</i>	256
<i>Poecilodes</i>	187	<i>plumieri</i>	256
<i>limaculatus</i>	187	<i>Polygona</i>	497
<i>paraloides</i> , <i>Laboste</i>	191	<i>Gymnothorax</i>	92
<i>Limia</i>	192	<i>polylepis</i> , <i>Balistes</i>	492
<i>Poecilophis</i>	94	<i>Scorpaena</i>	370
<i>noelurum</i>	94	<i>Polypterus</i>	74
<i>Poecilopsis isthmensis</i>	160	<i>laternatus</i>	74
<i>poecilopterus</i> , <i>Julis</i>	426	<i>spinosus</i>	74
<i>poecilopus</i> , <i>Myripristis</i>	235	<i>polylepis</i> , <i>Vermineulus</i>	492
<i>Rhamphobryx</i>	235	<i>Polypterus</i>	234
<i>Pocheilichthys</i>	280	<i>lowei</i>	234
<i>erythrostrum</i>	291	<i>mobile</i>	234
<i>transversum</i>	291	<i>Polyxanthus</i>	234
<i>poecilura</i> , <i>Myxostoma</i>	111	<i>polymorphus</i> , <i>Gadus</i>	210
<i>Poecilurichthys</i>	96	<i>Polynemidae</i>	256
<i>brevoortii</i>	96, 97	<i>Polyneuri</i>	256
<i>pulcher</i>	97	<i>americanus</i>	256
<i>taniurus</i>	97	<i>approximatus</i>	256
<i>unilineatus</i>	98	<i>artedii</i>	256
<i>poecilurum</i> , <i>Myxostoma</i>	111	<i>californicus</i>	256
<i>Pocheil</i>	190	<i>macrocheta</i>	256
<i>poeyi</i> , <i>Alepidosaurus</i> (<i>Caulopus</i>).....	171	<i>mango</i>	256
<i>Dactylopora</i>	435	<i>melanopoma</i>	256
<i>Engraulis</i>	41	<i>octonemus</i>	256
<i>Euctenogobius</i>	442	<i>ohgobus</i>	256
<i>Gobius</i>	442	<i>penalici</i>	256
<i>Iredo</i>	427	<i>quinquatus</i>	256
<i>Lyceogobius</i>	61	<i>saxatilis</i>	469
<i>Orthopristis</i>	345	<i>virginicus</i>	256
<i>Pempher</i>	323	<i>Polyodon</i>	36
<i>Platyglion</i>	427	<i>fenile</i>	36
<i>spilostoma</i>	241	<i>fohim</i>	36
<i>stigmatica</i>	241	<i>spathula</i>	36
<i>stomat</i>	164	<i>polyodon</i> , <i>Tetragonopterus</i> (<i>Hemibrycon</i>).....	97
<i>Pogonichthys</i>	352	<i>Polyodontidae</i>	36
<i>courbina</i>	352		

List of scientific names—Continued

	Page		Page
Polypera.....	399	Pomotis convexifrons.....	300
greeni.....	399	elongatus.....	300
polypogon, Linophryne.....	510	fallax.....	300
Polyprion.....	308	gibbosus.....	301
americanus.....	308	gulosus.....	302, 303
cernium.....	308	guttatus.....	304
massiliensis.....	308	heros.....	302
Polyprosopus.....	20	holbroeckii.....	302
macer.....	20	incisor.....	301
Polypterychthys.....	244	inscriptus.....	300
valentini.....	244	longulus.....	299
polysarcus, Naucrates.....	278	luna.....	301
polyspilos, Rhombus.....	223	microlophus.....	302
Polyuranodon.....	91	nefastus.....	300
polyuranodon, Muræna.....	91	nitida.....	300
Pomacanthodes.....	360	notatus.....	302
zonipectus.....	360, 361	obesus.....	303
Pomacanthus.....	360	obscurus.....	301
arcuatus.....	360	pallidus.....	301
balteatus.....	360	popeii.....	300
cingulatus.....	360	ravenelii.....	302
crescentalis.....	361	rubri-cauda.....	299
paru.....	360	sanguinolentus.....	300
quinquecinctus.....	360	solis.....	300
pomacanthus, Mesoprion.....	324	speciosus.....	301, 302
Pomacentridæ.....	412	vulgaris.....	302
Pomacentrus.....	413	pomotis, Acantharchus.....	303
adustus.....	414	Centrarchus.....	303
analigutta.....	414	Pomoxis.....	304
analis.....	413	annularis.....	304
atro-cyanæus.....	413	nitidus.....	304
bairdii.....	415	sparoides.....	305
breviceps.....	413	Pomoxys berricauda.....	304
caudalis.....	413	intermedius.....	304
denegatus.....	415	protacanthus.....	304
dorso-punicans.....	413	pompilius, Centrolophus.....	267
flavilatus.....	414	Pompilus.....	267
flaviventer.....	414	pompilus, Coryphæna.....	267
fuscus.....	413	Thynnus.....	278
gillii.....	414	ponderosus, Ameiurus.....	152
leucorubus.....	414	pondicerriana, Elacate.....	281
leucostictus.....	413	ponticus, Gasterosteus.....	237
lividus.....	413	Hippoglossus.....	221
niveatus.....	416	Pontinus.....	372
obscuratus.....	414	beanorum.....	372
otophorus.....	414	bergii.....	372
partitus.....	414	castor.....	372
planifrons.....	414	furcirhinus.....	372
quadrigutta.....	416	longispinus.....	372
rectifranum.....	414	macrolepis.....	372
variabilis.....	413	pollux.....	372
xanthurus.....	413	rathbuni.....	372
Pomadasis bayanus.....	334	sierra.....	372
elongatus.....	333	popeii, Pomotis.....	300
grandis.....	334	popoche, Xystrosus.....	142
Pomadasyx.....	334	porcus, Capriseus.....	491
approximans.....	334	Scorpena.....	370
bayanus.....	334	Porichthys.....	487
boschmæ.....	334	greeni.....	487
cæsius.....	331	margaritatus.....	487
grandis.....	334	nautopædium.....	487
macracanthus.....	334	notatus.....	487
productus.....	334	pleurodon.....	488
sinuosus.....	335	porifer, Lycenchelys.....	476
starri.....	334	Lycodes.....	476
templei.....	334	Porobronchus.....	486
Pomatomichthys.....	296	linearis.....	486
constanciae.....	296	Poroclinus.....	470
Pomatomidæ.....	280	rothrocki.....	470
Pomatomus.....	280	Porocottus.....	388
salatrix.....	280	bradfordi.....	388
skib.....	280	polaris.....	388
telescopium.....	296	quadratus.....	388
Pomatapriion.....	415	quadrifilis.....	388
Pomatopsetta.....	222	sellaris.....	388
Pomolobus.....	41, 42	Porogadus.....	482
æstivalis.....	42	atripectus.....	482
chrysochloris.....	41	breviceps.....	482
mediocris.....	42	longiceps.....	482
pseudoharengus.....	42	miles.....	482
lacustris.....	42	pomelas.....	481
Pomotis.....	299	Poromitra.....	233
bombifrons.....	301	capito.....	233
breviceps.....	300	Poronotus.....	267
catesbei.....	302	simillimus.....	266
charodon.....	303	triacanthus.....	267

List of scientific names—Continued

	Page		Page
porosissimum, Nautopædium.....	488	Prionodes fuscus.....	319
porosissimus, Batrachus.....	487, 488	phoebe.....	319
porosus, Carcharias.....	16	tabacaria.....	319
Cottus.....	387	tigrinus.....	319
Esox.....	173	Prionodon.....	17
Scollodon.....	15	cucur.....	16
Squalus.....	15	obelatus.....	16
postica, Echeis.....	449	(Prionodon) limbatus, Carcharias.....	16
Potamocottus.....	383	milberti, Carcharias.....	16
bendirei.....	384	Prionotus.....	497
caroline.....	383, 385	alatus.....	408
punctulatus.....	383	albirostris.....	408
zopherus.....	385	beanii.....	408
pottsii, Aplesion.....	290	birostratus.....	406
Rafinesquellus.....	290	evolans.....	407
powelli, Balistes.....	492	frontalis.....	408
præcisus, Clinus.....	470	gymnostethus.....	406
Eumesogrammus.....	470	horrens.....	408
prædatoria, Buccone.....	354	loxias.....	406
prædatorius, Cestreus.....	354	miles pectoralis.....	407
præstabilis, Alosa.....	42	militaris.....	408
præstigiator, Serranus.....	319	ophryas.....	407
præyenis, Pseudupeneus.....	343	pectoralis.....	407
preblei, Coregonus.....	65	pileatus.....	407
Prosopium.....	65	punctatus.....	407
prenadilla, Brontes.....	159	quiescens.....	408
presidionis, Pœcilia.....	189	roseus.....	407
Pœciliopsis.....	189	rubio.....	407
pretiosa, Argentina.....	67	ruscarius.....	406
pretiosus, Hypomesus.....	67	sarritor.....	407
Ruvettus.....	261	scitulus.....	407
Trachichthys.....	234	stearnsi.....	406
Princanthichthys.....	310	stephanophrys.....	407
maderaspatisensis.....	310	strigatus.....	407
Princanthidæ.....	322	tribulus.....	408
Princanthus.....	322	xenisma.....	406
altus.....	323	Prionurus punctatus.....	363
arenatus.....	322	Pristigaster.....	23
carolinus.....	322	Pristidurus.....	12
catalufa.....	322	Pristigaster.....	45
cepedianus.....	323	cayanus.....	45
cruentatus.....	322	dovii.....	45
fulgens.....	322	flavipinnis.....	44
macrophthalmus.....	322	lutipinnis.....	45
niphonius.....	322	macrops.....	45
serrula.....	323	martii.....	45
Priapella.....	188	(Odontognathus) panamensis.....	45
bonita.....	188	phaeton.....	45
Priapichthys.....	187	tartoon.....	45
annectans.....	187	Pristipoma.....	334
hesperis.....	187	acara-pinima.....	333
fosteri.....	189	auratum.....	333
huberi.....	187	bicolor.....	332
letonai.....	190	bilineatum.....	332
olomina.....	187	boschma.....	334
panamensis.....	187	boucardi.....	334
pribilovius, Nautichthys.....	382	branieki.....	334
Nautiscus.....	382	brasiliense.....	332
pricei, Camptostoma.....	147	brevipinne.....	335
Haustor.....	153	camtharinum.....	335
Villarius.....	152, 153	catharina.....	333
Prius.....	10	chalceum.....	334
prieto, Lutjanus.....	325	crocro.....	334
Prionotus.....	500	cultiferum.....	334
(Anchisomus) caudacinctus.....	500	davidsonii.....	332
Primospina.....	364	dovii.....	332
princeps, Caulolatilus.....	357	fasciatum.....	335
Cottus.....	384	furthii.....	332
Leptila.....	357	(Taeniolopsis) axillare.....	333
principis, Antennarius.....	505	brevipinne.....	335
Chirocentrus.....	505	nitidum.....	333
Julis.....	426	humile.....	334
Prionodon.....	180	humilis.....	334
Prionodontopsis.....	91	kneri.....	335
Prionace.....	17	leuciscus.....	333
glauca.....	17	maeracanthum.....	334
Prionatus egretta.....	408	melanopterum.....	332
Prionistius.....	380	notatum.....	332
macellus.....	380	panamense.....	333
Prionodes.....	319	productum.....	334
aquidens.....	319	ramosum.....	334
baldwini.....	319	rodo.....	333
bulleri.....	319	senpularo.....	332
dewegeri.....	319	splenitum.....	332
fasciatus.....	319	serrula.....	333
flavescens.....	319	trilineatum.....	332

List of scientific names—Continued

	Page		Page
Pristipomes, les	334	Promicrops	312
Pristipomus	334	italara	312
Pristipomoides	328	quinquefasciata	312
macrophthalmus	328	Promicropterus	316
typus	328	bistrispinus	316
Pristis	23	decoratus	317
acutirostris	23	nigriinnis	317
granulosa	23	Pronotogrammus	322
megalon	23	eos	322
microdon	23	multifasciatus	322
mississippiensis	23	proops, Bagrus	148
occa	23	Sciadeichthys	148
pectinatus	23	Propterygia	24
zephyreus	23	hyposticta	24
pristis, Squalus	23	prorates, Lepophidium	484
Pristiurus	12, 13	Leptophidium	484
are	12	proridens, Calamus	336
melastomus	12	poriger, Gnathophis	80
vanurus	12	Sebastichthys	366
Pristocantharus	335	var. brevispinis, Sebastichthys	366
Pristopomus	334	Squalus	120
Proarthri	10	prorigerum, Acutomentum	366
probatocephalus, Archosargus	338	Ophisoma	80
sparus	338	roserpina, Moniana	132
proboscidea, Limanda	227	Prosopium	65
proboscideum, Monacanthum	495	abyssicola	66
proboscideus, Chaenomugil	254	conesi	65
Mugil	254	couleri	65
procellarium, Myctophum	170	kennicotti	65
procera, Venefica	82	preblei	65
Proceros	36	quadrilaterale	65
maculatus	36	spilonotus	65
vittatus	36	stanleyi	65
procerum, Nettastoma	82	williamsoni	65
Prochilus	436	cismontanus	65
proene, Exocoetus (Cypsilurus)	201	Prospinus	312
Hybognathus	133	prosthemius, Ceratichthys	136
Hybopsis	133	prosthilus, Ameiurus	154
Proctostegus	261	protacanthus, Pomoxys	304
proctostegus	264	roteus, Salmo	54
proctostegus, Proctostegus	264	protoculus, Nyctophum	168
producta, Rhinobatus	24	Protopus	119
Ulaema	341	dominus	119
productum, Pristipoma	334	proxima, Seriola	279
productus, Alepocephalus	51	proximus, Gadus	210
Cylindrosteus	37	Microgadus	210
Engraulis	50	pruinosis, Gadus tomcodus	210
Eucinostomus	341	Pseudoblenius	465
Leuciscus	120	hypacanthus	465
Merlangus	214	Psempylus prometheus	261
Merluccius	214	Psenes	268
Pomadasyus	334	auratus	268
Rhinobatos	24	chappiani	269
procharis, Microperca	294	cyanophrys	268
profundorum, Acanthocottus	292	edwardsi	269
Aristurus	12	fuscus	268
Lepophidium	484	javanicus	268
Leptophidium	484	maculatus	268
Seyllorhinus	12	pacificus	269
Xenognathus	52	pellucidus	269
Zostedus	392	regulus	268
Profundulus	174	Psettichthys	222
candaliarius	174	melanostictus	222
labialis	174	sordidus	218
ocaceus	174	umbrosus	226
punctatus	174	Pseudageniosus	159
profundus, Meopron	326	pseudapilites, Micropterus	208
Prognathodes	359	Pseudaroides	158
aenlectus	359	lantherinus	159
prognathus, Coregonus	63	Pseudarius	150
Leucichthys	63	Pseudochirodon	96
Prognurus	403	affinis	96
cypselurus	403	Pseudochromide	322
prohans, Leuciscus	146	pseudogula, Eucinostomus	341
promelas, Chirostoma	251	pseudogula, Eucinostomus	341
Merlin	481	pseudoharengus, Clupea	42
Pimephades	145	lacustris, Pomolobus	42
Porogadus	481	Pomolobus	42
Promethus	261	Pseudohemicodon	161
atlanticus	261	pseudohispanica, Sardinia	43
promethus, Ganipylus	261	Pseudojulis	428
Promethichthys	261	adustus	428
Psempylus	261	girardi	428
Promethichthys	261	inornatus	428
prometheus	261	melanotis	428

List of scientific names—Continued

	Page		Page
<i>Pseudojulis notospilus</i>	428	<i>Pteroplatea micrura</i>	29
<i>venustus</i>	428	<i>rava</i>	29
<i>Pseudoloricaria</i>	161	<i>vallanti</i>	29
<i>Pseudomonacanthus</i>	403	<i>Pteropodus</i>	369
<i>Pseudomoringua</i>	89	<i>carinatus</i>	369
<i>Pseudomuræna</i>	91	<i>caurinus</i>	369
<i>maderiensis</i>	91	<i>chrysomelas</i>	369
<i>Pseudopleuronectes</i>	227	<i>dallii</i>	369
<i>americanus</i>	227	<i>gilberti</i>	369
<i>dignabilis</i>	227	<i>maliger</i>	369
<i>pseudoplites</i> , <i>Micropterus</i>	298	<i>nebulosus</i>	369
<i>Pseudopriacanthus</i>	323	<i>rastrelliger</i>	369
<i>altus</i>	323	<i>vexillaris</i>	369
<i>serrula</i>	323	<i>Pteropsaridæ</i>	451
<i>pseudoptiles</i> , <i>Micropterus</i>	298	<i>Pteropus</i>	369
<i>Pseudorhamdia</i>	158	<i>pterotum</i> , <i>Ateleobranchium</i>	207
<i>piscatrix</i>	159	<i>pterura</i> , <i>Strongylura</i>	196
<i>Pseudorhombus</i>	223	<i>pterurus</i> , <i>Tylosurus</i>	196
<i>vorax</i>	224	<i>Pterygiocottus</i>	380
<i>Pseudoscarus</i>	435	<i>macouni</i>	380
<i>aracanza</i>	434	<i>Pterygostedion imberbe</i>	406
<i>celestinus</i>	435	<i>Ptilichthyidæ</i>	471
<i>gnathodes</i>	434	<i>Ptilichthys</i>	471
<i>gütemaimi</i>	435	<i>goodei</i>	471
<i>lineolatus</i>	434	<i>Ptychocheilus</i>	113
<i>microps</i>	435	<i>gracilis</i>	113, 114
<i>microrrhinos</i>	435	<i>grandis</i>	114
<i>perrio</i>	435	<i>harfordi</i>	114
<i>pleianus</i>	435	<i>lucius</i>	114
<i>plumbeus</i>	435	<i>major</i>	114
<i>simplex</i>	435	<i>oregonensis</i>	114
<i>teniopterus</i>	433	<i>umpqua</i>	114
<i>Pseudoscopelus</i>	452	<i>vorax</i>	114
<i>scriptus</i>	452	<i>Ptycholepis</i>	40
<i>Pseudosebastes</i>	370	<i>Ptychostomus</i>	109
<i>Pseudotriakta</i>	12	<i>albidus</i>	110
<i>Pseudotriakis</i>	12	<i>albus</i>	110
<i>microdon</i>	12	<i>breviceps</i>	111
<i>Pseudoxiphiophorus</i>	187	<i>bucco</i>	110
<i>bimaculatus</i>	187	<i>cervinus</i>	111
<i>jonesi</i>	188	<i>collapsus</i>	110
<i>temminckii</i>	188	<i>corius</i>	111
<i>pauciradiatus</i>	188	<i>coregonus</i>	110
<i>reticulatus</i>	187	<i>crassilabris</i>	111
<i>Pseudupeneus</i>	343	<i>haydeni</i>	109
<i>brayensis</i>	343	<i>lachrymalis</i>	111
<i>Psilonotus</i>	500	<i>papillosus</i>	109
<i>psittacinus</i> , <i>Serranus</i>	310	<i>padensis</i>	110
<i>psittaculus</i> , <i>Labrus</i>	426	<i>robustus</i>	111
<i>psittacus</i> , <i>Colomesus</i>	500	<i>thalassinus</i>	110
<i>Coryphæus</i>	440, 443	<i>velatus</i>	109
<i>Lachnolaimus</i>	425	<i>Pudiano verde</i>	426
<i>Tetrodon</i>	500	<i>vermelho</i>	425
<i>Xyrichtys</i>	430	<i>puella</i> , <i>Hypoplectrus unicolor</i>	321
<i>Psychichthys</i>	33	<i>Plectropoma</i>	320, 321
<i>affinis</i>	33	<i>puellaris</i> , <i>Cossyphus</i>	425
<i>Psychrolutes</i>	302	<i>Decodon</i>	425
<i>paradoxus</i>	302	<i>puertoricensis</i> , <i>Malacoctenus</i>	460
<i>zebra</i>	302	<i>pugetensis</i> , <i>Arctidius</i>	375
<i>Psychromaster</i>	203	<i>Chitonotus</i>	375
<i>tuseumbia</i>	203	<i>pugeti</i> , <i>Gasterosteus</i>	238
<i>Ptaxis</i>	261	<i>pulchella</i> , <i>Gila</i>	119, 120
<i>parvipinnis</i>	261	<i>Leuciscus</i>	120
<i>Pteraclidus</i>	266	<i>Moniana</i>	131
<i>Pteraclidus</i>	266	<i>Tigoma</i>	120
<i>Pteraclis</i>	266	<i>pulchelloides</i> , <i>Leuciscus</i>	117
<i>carolinus</i>	266	<i>pulchellus</i> , <i>Bodianus</i>	425
<i>trichipterus</i>	266	<i>Cossyphus</i>	425
<i>Pteraplatea canariensis</i>	29	<i>Cymatogaster</i>	410
<i>valenciennæ</i>	29	<i>Leuciscus</i>	117
<i>Pterengraulis</i>	51	<i>Liparis</i>	400
<i>atherinoides</i>	51	<i>Lyoliparis</i>	400
<i>Pteridium</i>	266	<i>Oligocephalus</i>	291
<i>Pterocephala</i>	31	<i>Zygocentrus</i>	177
<i>Pterognathus</i>	458	<i>pulcher</i> , <i>Eques</i>	353
<i>satiricus</i>	458	<i>Labrus</i>	426
<i>Pteromyxus</i>	30	<i>Pareques</i>	353
<i>asperrimus</i>	30	<i>Pimelometopon</i>	426
<i>Pteronotus</i>	156	<i>Pocillurichthys</i>	97
<i>Pterophrone</i>	504	<i>pulchra</i> , <i>Tigoma</i>	120
<i>Pterophrynoides</i>	504	<i>pallata</i> , <i>Dicrolene</i>	485
<i>Pteroplatea</i>	29	<i>pallum</i> , <i>Chondrostoma</i>	146
<i>altavela</i>	29	<i>pallus</i> , <i>Cantherines</i>	494
<i>crebrispunctata</i>	29	<i>Monacanthus</i>	494
<i>marinorata</i>	29	<i>Pimelodus</i>	154

List of scientific names—Continued

	Page		Page
pulverentulus, Myloleucus.....	119-121	punctulatus, Calliurus.....	298
pulvereus, Zygonectes.....	178	Cottus.....	383
pulverulenta, Tigoma.....	120	Hippocampus.....	244
pulverulentum, Oxygeneum.....	113	Lampugus.....	265
puncta, Furcaria.....	412	Lythrurus.....	126
puncticeps, Cryptopterus.....	85	Minnilus.....	126
punctarene, Gymnothorax.....	92	Pimelodus.....	155
punctata, Alutera.....	495	Pœlicichthys.....	292
Davidia.....	495	Potomocottus.....	383
Gambusia.....	184, 185	Scarus.....	433
Girella.....	338	Sicyases.....	490
Gorgasia.....	77	Squalus.....	12
Lamna.....	19	Pungitius.....	238
Muræna.....	91	brachypoda.....	239
Murænophis.....	92	mainensis.....	239
Perca.....	309, 345	pungitius.....	239
punctulata, Gambusia.....	185	pungitius brachypoda, Gasterosteus.....	239
Solea.....	217	pungitius, Gasterosteus.....	238, 239
Trigla.....	407	Pungitius.....	239
punctatissima, Anguilla.....	77	puniceus, Hyborhynchus.....	145
punctatissimus, Canthigaster.....	500	purpurascens, Lepomis.....	301
Ophioscion.....	347	variegata, Salpa.....	327
Tetrodon.....	500	purpuratus bouvieri, Salmo.....	56
punctatum, Cichlasoma.....	417	Salmo.....	56
Hoplosternum.....	160	purpurea, Tigoma.....	119
Hyperprosopon argenteum.....	410	purpureus, Anoplarchus.....	468
Megalonema.....	159	archolepis, Anoplarchus.....	468
Myctophum.....	169	purpureus, Gadus.....	209
Opisthognathus.....	453	Labrus.....	428
Ostracion.....	496	Lutjanus.....	326
Sicydium.....	447	pusilla, Aphrostitia.....	231
Theraps.....	417	Bothrocarra.....	477
punctatus, Apomotis.....	299	Clupea.....	42
Apriodon.....	15	Maynea.....	477
Balistes.....	492	Perca.....	295
Blennius.....	462, 469	Platessa.....	227
Bryttus.....	298, 299	pusillus, Coregonus.....	62
Caranx.....	270, 273	Enneapterygius.....	458
Carcharius.....	15	Leucichthys.....	62
Cephalopholis fulvus.....	309	Symphurus.....	231
Cotylopus.....	448	putaol, Gymnotus.....	101
Decapterus.....	270	putnami, Acipenser.....	34
Dermatolepis.....	313	Cottogaster.....	285
Diodon.....	501	Euchalarodus.....	227
Eques.....	353	Liopsetta.....	227
Fundulus.....	174	Pycnomma.....	438
Gadus.....	213	semisquamatum.....	438
Gymnothorax.....	92	Pygidiidae.....	159
Hoplosternum.....	160	Pygidium.....	159
Ictalurus.....	152	fuscum.....	159
Isurus.....	19	striatum.....	159
Labrus.....	416	pygmaea bilineata, Umbra.....	174
Maurollicus amethystino.....	73	pygmaea, Eucalia.....	238
Micristodus.....	18	Umbra.....	174
Monacanthus.....	494	pygmaeus, Gadus.....	210
Morrhua.....	211	Gasterosteus.....	238
Myrophis.....	82, 83	Leuciscus.....	174
Opisthognathus.....	453	Pygosteus.....	238
Ostracion.....	496	Pyliodietis limosus.....	155
Pareques.....	353	pyramidatus, Cyclopterus.....	397
Prionotus.....	407	pyrrhogaster, Chrosomus.....	113
Prionurus.....	363	pyrrhomelas, Erogala.....	129
Profundulus.....	174	Photogenis.....	129
Silurus.....	151, 152	Pythonichthys.....	90
Squalus.....	12, 14, 15	sanguineus.....	90, 91
Stichæus.....	469		
Tetrodon.....	499		
Trachinus.....	310	quadracus, Apeltes.....	239
Upeneus.....	343	Gasterosteus.....	239
Xesurus.....	363	quadrangularis, Selene.....	358
puncticeps, Cryptopterenchelys.....	85	quadratus, Porocottus.....	388
Cryptopterus.....	85	Zeus.....	358
puncticulata, Gambusia.....	185	quadricornis, Acanthonotus.....	497
puncticulatus, Apogonichthys.....	296	Acanthostracion.....	497
Chilomycterus.....	502	Aspidophorus.....	393
Holocentrum.....	236	Cottus.....	388
punctifer, Crotalopsis.....	88	Hypsogonus.....	393
Hybognathus (Diorda).....	144	Onocottus.....	388
Trigonophallus.....	187	Ostracion.....	497
punctiferus, Menephorus.....	309	quadridens, Pleuronectes.....	228
punctillatus, Gobius.....	440	quadrifasciatus, Chasmodes.....	462
punctipinnis, Ayresia.....	413	Pholis.....	462
Dermatostethus.....	240	quadrifilis, Pathypterois.....	166
puncto-mediocris, Antennarius.....	505	Porocottus.....	388
punctulata, Gambusia punctata.....	185	quadrigutta, Pomacentrus.....	416
Microperca.....	294	quadrilaterale, Prosopium.....	65
Nivicola.....	292	quadrilateralis, Coregonus.....	65

List of scientific names—Continued

	Page		Page
<i>quadrilineatum</i> , <i>Hæmulon</i>	331	<i>radiatus</i> , <i>Lophius</i>	507
<i>quadriloba</i> , <i>Raia</i>	31	<i>Ogocephalus</i>	507
<i>quadriloporus</i> , <i>Gobius</i>	439	<i>Sparus</i>	426
<i>Rhinogobius</i>	439	<i>radiosus</i> , <i>Antennarius</i>	506
<i>quadrilopunctatus</i> , <i>Scomber</i>	259	<i>radula</i> , <i>Balistes</i>	493
<i>quadrirremus</i> , <i>Exocoetus</i>	201	<i>Melichthys</i>	493
<i>quadriseriatus</i> , <i>Artedius</i>	376	<i>Radulinus</i>	379
<i>Icelinus</i>	376	<i>asprellus</i>	379
<i>quadrispinosus</i> , <i>Scarus</i>	434	<i>boleoides</i>	379
<i>quadrilobulatus</i> , <i>Pleuronectes</i>	226	<i>rafinesquei</i> , <i>Acipenser</i> (<i>Huso</i>).....	35
<i>quadropunctatus</i> , <i>Ancyclosetta</i>	224	<i>Colletia</i>	168
<i>quappella</i> , <i>Etheostoma</i>	291	<i>Cylindrosteus</i>	37
<i>quartus rondeleti</i> , <i>Anthias</i>	326	<i>Nyctophus</i>	168
<i>Quassilabia</i>	112	<i>Rafinesquellus</i>	290
<i>Quassiremus</i>	87	<i>pottii</i>	290
<i>evionthas</i>	87	<i>rafinesquii</i> , <i>Acipenser</i> (<i>Huso</i>).....	35
<i>nothochir</i>	87	<i>Cylindrosteus</i>	37
<i>quatuordecimlaminatus</i> , <i>Echeneis</i>	449	<i>rahleghanus</i> , <i>Squalus</i>	20
<i>quenseli</i> , <i>Pleuronectes</i>	228	<i>Raia</i>	24
<i>quercinum</i> , <i>Macrostoma</i>	166	<i>americana</i>	25
<i>quercinus</i> , <i>Notoscopelus</i>	166	<i>aquila</i>	31
<i>Querimana</i>	253	<i>birostris</i>	32
<i>curema</i>	253	<i>chantenay</i>	25
<i>galmardianus</i>	254	<i>cooperi</i>	26
<i>gyrans</i>	253	<i>desmarestia</i>	25
<i>hospes</i>	254	<i>diaphanes</i>	25
<i>incilis</i>	253	<i>eglanteria</i>	25
<i>setosus</i>	254	<i>erinacea</i>	25
<i>thoburni</i>	253	<i>fimbriata</i>	32
<i>trichodon</i>	254	<i>flagellum</i>	30
<i>querna</i> , <i>Azevia</i>	221	<i>granulata</i>	25
<i>Cyclosetta</i>	221	<i>guttata</i>	28
<i>quiebra</i> , <i>Lichia</i>	277	<i>inornata inermis</i>	26
<i>quiescens</i> , <i>Pocilichthys</i>	294	<i>interrupta</i>	26
<i>Prionotus</i>	408	<i>jordani</i>	26
<i>Uranidea</i>	385	<i>maclura</i>	29
<i>Quietula</i>	444	<i>manatini</i>	32
<i>y-cauda</i>	444	<i>micura</i>	29
<i>quinctifer</i> , <i>Crotolopsis</i>	68	<i>narinari</i>	30
<i>quinat</i> , <i>Salmo</i>	55	<i>obtus</i>	26
<i>quinquarius</i> , <i>Pentanemus</i>	256	<i>ocellata</i>	25
<i>Polynemus</i>	256	<i>quadriloba</i>	31
<i>quinquecinctus</i> , <i>Pomacanthus</i>	360	<i>radiata</i>	25
<i>quinquefasciata</i> , <i>Promicrops</i>	312	<i>rosispinis</i>	26
<i>quinquefasciatus</i> , <i>Serranus</i>	312	<i>scabrata</i>	25
<i>quinquelineatum</i> , <i>Hæmulon</i>	331	<i>rail</i> , <i>Brama</i>	265
<i>quitzeensis</i> , <i>Platypocilus</i>	182	<i>Sparus</i>	265
<i>Zoogoneticus</i>	182	<i>Raizero</i>	327
<i>quoyi</i> , <i>Cestracion</i>	10	<i>aratus</i>	327
		<i>Raja</i>	24
<i>Rabdophorus</i>	359	<i>abyssicola</i>	26
<i>Rabida</i>	155	<i>ackleyi</i>	25
<i>eleuthera</i>	156	<i>aleutica</i>	26
<i>exilis</i>	156	<i>altavela</i>	29
<i>funeris</i>	156	<i>binoculata</i>	26
<i>furiosa</i>	156	<i>centroua</i>	28
<i>gilberti</i>	156	<i>diaphanes</i>	25
<i>insignis</i>	156	<i>eglanteria</i>	25
<i>leptacantha</i>	155	<i>equatorialis</i>	26
<i>miura</i>	156	<i>erinacea</i>	25
<i>nocturna</i>	156	<i>fulla</i>	25
<i>Rabirubia</i>	327	<i>giorna</i>	31
<i>genizara</i>	426	<i>granulata</i>	25
<i>inermis</i>	327	<i>inornata</i>	26
<i>rabirubia</i> , <i>Anthias</i>	327	<i>interrupta</i>	26
<i>Rabula</i>	91, 93	<i>jamaicensis</i>	29
<i>davisi</i>	91	<i>lævis</i>	25
<i>longicauda</i>	91	<i>microt rachys</i>	25
<i>marmorea</i>	91	<i>mobular</i>	31
<i>panamensis</i>	91	<i>montereyensis</i>	26
<i>rachovi</i> , <i>Heterophallus</i>	184	<i>ornata</i>	26
<i>Rachycentridæ</i>	281	<i>parmifera</i>	26
<i>Rachycentron</i>	281	<i>pastinaca</i>	28
<i>capadus</i>	281	<i>percellens</i>	23
<i>Radcliffeella</i>	446	<i>plutonina</i>	26
<i>radiale</i> , <i>Diplectrum</i>	318	<i>radiata</i>	25
<i>radialis</i> , <i>Serranus</i>	318	<i>rhina</i>	26
<i>radiana</i> , <i>Scarus</i>	432	<i>rosispinis</i>	26
<i>Serranus</i>	318	<i>sav</i>	26
<i>Sparisoma</i>	432	<i>scabrata</i>	25
<i>radiata</i> , <i>Iridio</i>	426	<i>sentia</i>	25
<i>Raia</i>	25	<i>stabiliforis</i>	25
<i>Raja</i>	25	<i>stellulata</i>	26
<i>radiato</i> , <i>Turdus oculo</i>	426	<i>trachura</i>	26
<i>radiatus</i> , <i>Halosaurus</i>	74	<i>tuberculata</i>	28
<i>Labrus</i>	426	<i>Rajido</i>	24

List of scientific names—Continued

	Page		Page
raja, Squatina	23	Reinhardtius	221
raleighana, Harriotta	33	hippoglossoides	221
rammelsbergii, Mugil	253	remifer, Isopisthus	353
ramosum, Pristipoma	334	remiger, Myctophum	161
ramosus, Rhonciscus	334	remigera, Botbrocara	477
Ramularia	224	Remilegia	449
dendrica	224	australis	449
ranchoyii, Heterophallus	184	Remora	449
Xiphophorus	193	remora	449
helleri	193	remora, Echeueis	449
ranula, Liparis	402	Remora	449
ranulus, Careproctus	402	Remoria	449
Ranzania	504	albescens	449
makua	504	remoroides, Echeueis	449
truncata	504	Remoropsis	449
raphidoma, Belone	196	brachyptera	16
Tylosurus	196	remotus, Carcharias	312
Raro	95	Serranus	17
rarus, Rhinoscopelus	168	Reniceps	17
Scopelus	168	tiburo	17
rascacio, Scorpena	370	repandus, Serranus	315
rashleighanus, Squalus	20	reticularis, Antennarius	505
rastralis, Anchoviella	50	reticulata, Amia	31
Stolephorus	50	Pocilia	191
rastrelliger, Physiculus	212	Spatularia	36
Pteropodus	369	Thalassophryne	488
Sebastichthys	369	reticulatus, Bryttus	299
Rastrinus	378	Catostomus	105
scutiger	378	Diodon	502
Rataboura	89	Eriscion	355
Rathbunella	452	Esox	173
alleni	452	Halieutichthys	507
hypoplecta	452	Lebistes	191
rathbuni, Fundulus	179	Lepadogaster	488
Mulloides	344	Lycodes	474
Polycirrhus	351	Monochir	229
Pontinus	372	Notropis	133
Upeneus	344	Otolithus	355
Zonoscion	351	Pseudoxiphophorus	187
Zygonectes	179	Trisotropis	315
rauchi, Acipenser (Huso)	35	retifer, Scylliorhinus	11
Ichthyobus	102	retifera, Muræna	90
raucus, Sargus	338	retiferum, Scyllium	11
rava, Pteroplatea	29	retractus, Calliodon	431
ravenelli, Esox	173	Cryptotomus	431
Pomotis	302	retrocurrens, Hæmulon	329
recalva, Montereya	391	retropinnis, Catostomus	107
recalvus, Blennicottus	391	Microdesmus	473
rectangularis, Acara	421	Opichthys	87
rectangularis, Astatheros	421	Opichthys	87
rectifrenum, Eupomacentrus	414	retrosella, Amia	295
Pomacentrus	414	Apogon	235
recurvirostrata, Sayris	197	retrospinis, Holocentrum	236
reddingi, Orthopristis	335	Plectropops	236
redi, Orthogoriscus	503	retzii, Orthogoriscus	503
refulgens, Oligoplites	278	rex, Catostomus	105
regale, Myctophum	163	Etheostoma	283
Nannobranchium	163	Percina	283
regalis, Cynoscion	355	rex-mullorum, Apogon	235
Enchelyopus	213	rex-salmonorum, Trachipterus	216
Johnius	355	Trachipterus	216
Salmo	56	rhabdophora, Brachyrhaphis	186
Scomber	257	Gambusia	186
Scomberomorus	257	Rhacochilus	411
regani, Chirostoma	250	toxotes	411
Gambusia	186	Rhamdella	156
Rhamdia	158	Rhamdia	156
regis, Atherinops	252	barbata	158
Colpichthys	252	baronis-mulleri	157
regius, Blennius	213	brachycephala	157
Hybognathus	143	bransfordi	157
Lampris	216	cabreræ	157
Urophycis	87	depressa	158
Zeus	213	godmani	157
regulus, Psenes	268	guatemalensis	157
Sebastes	363	heteracantha	158
reighardi, Leucichthys	63	hypselura	157
Reighardina	9	laticauda	157
unicolor	9	managuensis	157
reinhardi, Careproctus	402	motaguensis	157
Liparis	402	nicaraguaensis	157
reinhardtii, Motella	208	oaxacæ	158
reinhardtii, Corynolophus	509	parryi	158
Himantolophus	509	petenensis	158
		polycaula	158

List of scientific names—Continued

	Page		Page
<i>Rhamdia regani</i>	158	<i>Rhinogobius</i>	439
<i>rogersi</i>	158	<i>boleosoma</i>	439
<i>sacrificii</i>	158	<i>claytonii</i>	439
<i>salvini</i>	157	<i>curacao</i>	439
<i>underwoodi</i>	158	<i>eigenmanni</i>	439
<i>wagneri</i>	157	<i>encaemus</i>	439
<i>Rhamphichthys brevirostris</i>	101	<i>garmani</i>	439
<i>Rhamphoberyx</i>	235	<i>glaucofraenum</i>	439
<i>leucopus</i>	235	<i>manglicola</i>	439
<i>pæcilopus</i>	235	<i>mowbrayi</i>	439
<i>Rhamphocottidae</i>	393	<i>parvus</i>	439
<i>Rhamphocottus</i>	393	<i>quadriporus</i>	439
<i>richardsoni</i>	393	<i>shufeldti</i>	439
<i>Rhegma</i>	322	<i>similis</i>	439
<i>thauzasium</i>	322	<i>stigmaturus</i>	439
<i>Rhegmatidae</i>	322	<i>tortuga</i>	439
<i>Rhegnopteri</i>	256	<i>Rhinoliparis</i>	405
<i>Rheneus</i>	333	<i>attenautus</i>	405
<i>panamensis</i>	334	<i>barbulifer</i>	405
<i>Rheocrypta</i>	285	<i>Rhinonemus</i>	209
<i>copelandi</i>	285	<i>Rhinoptera</i>	31
<i>rhessodon, Arbacia</i>	490	<i>bonasus</i>	31
<i>Gobiesox</i>	490	<i>cenecade</i>	31
<i>Rhina</i>	22	<i>lalandi</i>	31
<i>rhina, Antimora</i>	211	<i>steindachneri</i>	31
<i>Raja</i>	26	<i>vespertilio</i>	31
<i>Rhincodon</i>	18	<i>Rhinopteriidae</i>	31
<i>typicus</i>	18	<i>Rhinoscion</i>	348
<i>Rhineodon</i>	18	<i>saturnus</i>	348
<i>typicus</i>	18	<i>Rhinoscopelus</i>	168
<i>Rhineodontidae</i>	18	<i>andree</i>	168
<i>Rhinesomus</i>	496	<i>coccol</i>	169
<i>triqueter</i>	496	<i>oceanicus</i>	169
<i>Rhinichthys</i>	139	<i>rarus</i>	168
<i>(Apocope) nevadensis</i>	141	<i>Rhinotriacis</i>	13
<i>velifer</i>	141	<i>henlei</i>	14
<i>arenatus</i>	140	<i>rhizophoræ, Fundulus</i>	175
<i>atronasus</i>	140	<i>rhodochloris, Sebastichthys</i>	367
<i>badius</i>	140	<i>Sebastomus</i>	367
<i>bowersi</i>	139	<i>rhodopus, Trachinotus</i>	276
<i>cataractæ</i>	139	<i>rhodorus, Ascelichthys</i>	392
<i>croceus</i>	140	<i>rhodospius, Gobiesox</i>	489
<i>dulcis</i>	139	<i>rhodotus, Holconotus</i>	440
<i>henshavi</i>	141	<i>Rhodymenichthys</i>	468
<i>lunatus</i>	140	<i>dolichogaster</i>	468
<i>luteus</i>	139	<i>rhomalea, Gnathypops</i>	452
<i>marmoratus</i>	139	<i>rhomaleus, Opistognathus</i>	453
<i>maxillosus</i>	139	<i>Squalius</i>	119
<i>meleagris</i>	140	<i>rhombea, Moharra</i>	342
<i>obtus</i>	140	<i>rhombeus, Gerres</i>	342
<i>ocella</i>	139	<i>Rhombichirus</i>	450
<i>simus</i>	140	<i>osteochir</i>	450
<i>transmontanus</i>	139	<i>rhombidialis, Lebias</i>	181
<i>rhinichthyoides, Tigoma</i>	141	<i>Otolithus</i>	354
<i>Rhinobatidae</i>	23	<i>Perca</i>	338
<i>Rhinobatus</i>	23	<i>Salma</i>	338
<i>glaucostigma</i>	24	<i>rhomboides, Chætodon</i>	277
<i>horkeli</i>	23	<i>rhomboides, Hemiscaranx</i>	271
<i>lentiginosus</i>	23	<i>Lagodon</i>	337
<i>leucorhynchus</i>	24	<i>Sparus</i>	337
<i>percellens</i>	23	<i>Trachinotus</i>	227
<i>productus</i>	24	<i>Rhomboidichthys</i>	217
<i>spinosus</i>	24	<i>leopardinus</i>	218
<i>stellio</i>	24	<i>spinosus</i>	217
<i>Rhinobatus</i>	23	<i>Rhomboplites</i>	327
<i>columna</i>	23	<i>aurorubens</i>	328
<i>electricus</i>	23	<i>Rhombotides</i>	362
<i>glaucostictus</i>	23	<i>Rhombus</i>	266
<i>glaucostigma</i>	24	<i>bahianus</i>	217
<i>horkeli</i>	23	<i>levis cornubiensis</i>	228
<i>lentiginosus</i>	23	<i>ocellatus</i>	217
<i>leucorhynchus</i>	24	<i>polyspilos</i>	223
<i>marcgravi</i>	23	<i>soleiformis</i>	218
<i>producta</i>	24	<i>Rhonceiscus</i>	334
<i>rhinobatus</i>	23	<i>branicki</i>	334
<i>seu</i>	23	<i>croco</i>	334
<i>spinosus</i>	24	<i>ramosus</i>	334
<i>stellio</i>	23	<i>sinuosus</i>	335
<i>undulatus</i>	23	<i>rhothea, Cottus</i>	383
<i>Rhinoberyx</i>	245	<i>Uranidea</i>	383
<i>chryseu</i>	245	<i>rhotheus, Leucosomus</i>	117
<i>Rhinocæmeridae</i>	33	<i>Rhothea</i>	280
<i>Rhinocymus</i>	21	<i>(Rhothea) biennius, Etheostoma</i>	287
<i>Rhinodon</i>	18	<i>rhothea, Thoburnia</i>	108
<i>Rhinogobius</i>	440	<i>rhotheus, Castostomus</i>	108
<i>nichoni</i>	440	<i>rhynchaus, Aelpenser</i>	36

List of scientific names—Continued

	Page		Page
Rhynchias.....	451	Rivulus harti.....	180
septipinnis.....	451	heyel.....	180
Rhynchichthys.....	235	isthmensis.....	180
brachyrhynchus.....	235	marmoratus.....	179
Rhynchoerarias.....	511	tenuis.....	180
brevirostris.....	511	roanoka, Alvordius.....	284
leucorhinus.....	511	Hadropterus.....	284
rostratus.....	511	robalito, Centropomus.....	306
Rhypticus.....	316	Robalo.....	306
maculatus.....	317	prieto.....	306
nigripinnis.....	317	roberti, Exocoetus.....	201
nigromaculatus.....	316	Hemiramphus.....	198
pituosus.....	316	Hyporhamphus.....	198
subbifrenatus.....	316	robertsi, Anchoviella.....	49
xanti.....	316	Ceratobatis.....	32
Rhytidostomus.....	102	Siphostoma.....	241
ralli, Onus.....	214	Stolephorus.....	49
ricardi, Mesoprius.....	327	Syngnathus.....	241
ricci, Cottopsis.....	386	robertsoni, Astatheos.....	420
Cottus.....	386	Cichlasoma.....	420
richardi, Caranx.....	272	robinii, Hypostomus.....	160
Hemiramphus.....	198	robusta, Agosia.....	140
Salmo.....	55	Apocope.....	140
richardsoni, Acipenser (Huso).....	35	Gila.....	114
Astronesthes.....	71	Hermosilla.....	340
Catostomus.....	103	Moniana.....	132
Chauliodus.....	71	Perca.....	311
Corvina.....	352	robustum, Megalonema.....	159
Cottus.....	385	Moxostoma.....	111
Hybopsis heterodon.....	136	robustus, Benthocometes.....	482
Rhaphiocottus.....	393	Clypeocottus.....	381
Trachidermis.....	383	Hippoglossoides.....	222
richardsonii, Coregonus.....	64	Ictalurus.....	152
Richardsonius.....	117	Mylopharodon.....	113
balteatus.....	118	Neobythites.....	482
lateralis.....	118	Notropis.....	132
microdon.....	118	Ptychostomus.....	111
siuslawi.....	118	Zoogoneticus.....	182
thermophilus.....	118	Roccus.....	307
Richia.....	293	comes.....	355
brevispina.....	293	saxitilis.....	307
Richiella.....	293	striatus.....	307
riciata, Bothrocara.....	477	rochei, Auxis.....	259
rictus, Xenomystax.....	81	Scomber.....	259
riddlei, Toxus.....	188	rodo, Pristipoma.....	333
rigidus, Pimelodus.....	159	Roeboides.....	98
rijersmrei, Ocyurus.....	327	guatemalensis.....	98
rim, Scomber.....	273	macrolepis.....	95
rimator, Bathystoma.....	329, 331	occidentalis.....	98
Hemulon.....	331	salvadoris.....	98
rimensis, Russiculus.....	391	Rogenia.....	41
Rimicola.....	490	alba.....	41
beryllinus.....	490	rogersi, Pimelodus.....	158
eigenmanni.....	490	Rhamdia.....	158
(Rimicola) beryllinus, Gobioides.....	490	Urolophus.....	30
rimosus, Etropus.....	220	Roncador.....	348
Rineloricaria.....	162	steamsi.....	348
lima.....	162	roncador, Umbrina.....	350
ringens, Atopoelinus.....	465	ronchus, Bairdiella.....	346
Balistes.....	493	Corvina.....	346
Phænodon.....	71	rondeleti, Anthias quartus.....	326
Sudis.....	165	Carcharodon.....	20
Xanthichthys.....	493	Rondeletia.....	171
riparium, Holocentrum.....	236	bicolor.....	171
risso, Alpismaris.....	163	Rondeletidae.....	171
rossoanus, Notacanthus.....	76	rondeleti, Exocoetus.....	200
Rissola.....	485	Exonantes.....	200
marginata.....	485	Orthogoriscus.....	503
ritteri, Lampanyctus.....	167	Sargus.....	338
Pleuronichthys.....	225	Scombresox.....	197
Xeneretmus.....	316	Xiphias.....	264
Xenopyxis.....	316	Ronquillus.....	452
rivalis, Salmo.....	60	jordani.....	452
riverendi, Cyprinodon.....	181	roosevelti, Salmo.....	59
Trifarcus.....	181	rosacea, Mycteroperca.....	314
rivoliana, Seriola.....	280	rosaceus, Cymatogaster.....	410
rivolianus, Zonichthys.....	280	Epinephelus.....	314
rivularis, Salmo.....	58	Mesoprius.....	326
rivulatus, Cirrhitus.....	358	Paraliparis.....	404
Diodon.....	502	Sebastes.....	367
Rivulus.....	179	Sebastomus.....	367
brunneus.....	180	Zalemibus.....	410
chucunaquæ sucubiti.....	180	rosa, Clevelandia.....	445
chucunaque.....	180	Hemiramphus.....	198
cylindraceus.....	179	Hyporhamphus.....	198
flabellicauda.....	180	Troglichthys.....	195
godmanni.....	180	rosarium, Acipenser (Huso).....	35

List of scientific names—Continued

	Page		Page
rosei, Salmo.....	59	rubrifrons, Alburnus.....	124
roseipinnis, Lythurus.....	126	Erinemus.....	138
Notropis.....	126	Nocomis.....	138
roseus, Cryptotomus.....	431	Notropis.....	124, 128
Hydrophlox.....	127	Zygonetes.....	177
Luxilus.....	127	rubrilateralis, Coesius plumbeus.....	116
Merulinus.....	407	rubripinna, Cyprinella.....	131
Prionotus.....	407	rubripinne, Sparisoma.....	433
Rosicola alexandri.....	365	rubripinnis, Argyraeus.....	128
babeckii.....	365	Scarus.....	433
miniatus.....	365	rubrirostris, Cataetys.....	480
pinniger.....	365	rubrivinctus, Hispanicus.....	368
rosipes, Novaculichthys.....	430	Sebastichthys.....	368
Xyrichthys.....	430	rubrofluvialilis, Cyprinodon.....	181
rosispinis, Raja.....	26	Cyprinodon bovinus.....	181
Raja.....	26	rubro-punctatus, Salaria.....	463
rossii, Salmo.....	60	rubropunctatus, Scartichthys.....	463
Salvelinus.....	60	rubrum, Chorististum.....	315
rostrata, Albula.....	40	rudis, Centrochromis.....	415
Aldrovandia.....	75	Glyphidodon.....	415
Anguilla.....	77	rufa, Morone.....	307
Loricaria.....	161, 162	Perca.....	236
Muraena.....	77	rufileatus, Nothonotus.....	290
Platessa.....	227	Poecilichthys.....	290
Sturisoma.....	161	ruipinnis, Exocoetus.....	201
rostratum, Astatheros.....	421	Exonatus.....	201
Holocentrum.....	236	rum, Acutomentum.....	366
rostratus, Apterodontus.....	101	rufus, Balistes.....	493
Canthigaster.....	500	Bodianus.....	425
Gymnothorax.....	91	Centropomus.....	318
Halosaurus.....	75	Holocentrus.....	236
Heros.....	421	Labrus.....	425
Heterostichus.....	458	Onos.....	208
Holocentrus.....	235	Sebastodes.....	366
Notacanthus.....	76	rugifer, Ophichthys.....	88
Phycis.....	213	rugosus, Platicthys.....	226
Polyacanthonotus.....	76	rupertianus, Acipenser.....	35
Rhynchocercatus.....	511	rupestre, Eltheostoma (Rhothoea).....	290
Scarus.....	435	Nanostoma.....	290
Squalus.....	19	rupestris, Ambloplites.....	303
Stenarchus.....	101	Arbacia.....	491
Tetodon.....	500	Bodianus.....	303
Zeus.....	275	Coryphæna.....	205
rotengulus, Leuciscus.....	117	Coryphænoideus.....	205
rothrocki, Notogrammus.....	469	Gadus.....	210
Poroclinus.....	470	Gobiesox.....	491
rousseau, Syngnathus.....	241	Sebastichthys.....	368
rubellio, Eximia.....	391	Sebastomus.....	368
Greeleya.....	391	Serranus.....	313
rubellus, Alburnus.....	123	Xiphister.....	469
rubens, Tautoga.....	424	Rupiscartes.....	463
rubber, Apogon.....	295	atlanticus.....	463
Cephapholis fulvus.....	309	rupiscartes, Moxostoma.....	111
Coregonus.....	163	Scartomyzon.....	111
Elaphotoxon.....	271	ruppelli, Monacanthus.....	494
Epinephelus.....	315	ruptus, Julis.....	427
Gadus.....	214	Ruscariops.....	378
Gymnocephalus.....	309	creaseri.....	378
parvus, Sebastes.....	368	Ruscarius.....	378
Rutilus.....	126	meanyi.....	378
Scomber.....	271	ruscarius, Gurnardius.....	406
Sebastes.....	368	Prionotus.....	406
ruberrimus, Astyanax.....	97	Rusciculus.....	391
Gunnellus.....	468	rimensis.....	391
Sebastes.....	368	Rusulus.....	390
Sebastopyr.....	368	saburra.....	390
rubescens, Algansea.....	116	ruscula atlantica, Scorpaena.....	370
Auchenopteris.....	457	ruscula, Scorpaena.....	371
Conger.....	79	ruthenus, Acipenser.....	34
Exocoetus.....	201	rutila, Moniana.....	131
Exonatus.....	201	Rutilus amblops.....	133
Steinergia.....	266	anomalus.....	146
rubicundus, Acipenser.....	35	columbianus.....	122
Glyphisodon.....	415	compressus.....	123, 128
Hypsypops.....	415	melanurus.....	110
rubiginosus, Sicyases.....	490	oregonensis.....	122
Rubio volador.....	407	plargyrus.....	128
rubio, Prionotus.....	407	rubus.....	126
rubra, Garmannia.....	445	storerianus.....	137
Liopropoma.....	315	ruteri, Neoliparis.....	390
Sclera.....	235	Ruvettus.....	261
rubre, Liopropoma.....	315	pretiosus.....	261
rubri-cauda, Pomotis.....	209	temminckii.....	261
rubricroceus, Hybopsis.....	126, 127	Rypticus.....	316
Hydrophlox.....	127	arenatus.....	316

List of scientific names—Continued

	Page		Page
<i>Rypticus bicolor</i>	316	<i>Salmo canadensis</i>	60
<i>coriaceus</i>	316	<i>canis</i>	54
<i>maculatus</i>	316	<i>callaris</i>	61
<i>saponaceus</i>	316	<i>campbelli</i>	61
<i>xanti</i>	316	<i>canadensis</i>	60
<i>sabalo</i> , <i>Arges</i>	159	<i>canis</i>	54
<i>sabanensis</i> , <i>Hippoglossina</i>	223	<i>carinatus</i>	56
<i>sabina</i> , <i>Trygon</i>	29	<i>clarkii</i>	56
<i>sabinae</i> , <i>Hybopsis</i>	135	<i>declivifrons</i>	57
<i>Notropis</i>	135	<i>jordani</i>	57
<i>sabinus</i> , <i>Amphotistius</i>	29	<i>tahoensis</i>	57
<i>saburrae</i> , <i>Chasmodes</i>	462	<i>clupeiformis</i>	64
<i>Rusulus</i>	390	<i>confinis</i>	59
<i>Saccopharyngidae</i>	95	<i>confluentus</i>	55
<i>Saccopharynx</i>	95	<i>consuetus</i>	54
<i>ampullaceus</i>	95	<i>cooperi</i>	55
<i>chordatus</i>	95	(<i>Coregonus</i>) <i>harengus</i>	62
<i>flagellum</i>	95	<i>lucidus</i>	62
<i>saccostoma</i> , <i>Lasiognathus</i>	510	<i>sapidissimus</i>	64
<i>sacrificii</i> , <i>Rhamdia</i>	158	<i>tullibee</i>	64
<i>sadina</i> , <i>Clupea</i>	46	<i>crencentis</i>	57
<i>Etrumeus</i>	46	<i>curilis</i>	61
<i>Safole</i>	305	<i>declivifrons</i>	57
<i>taniura</i>	305	<i>dermatinus</i>	54
<i>sagamich</i> , <i>Ebisus</i>	373	<i>edentulus</i>	100
<i>Sagenichthys</i>	354	<i>eperlanus</i>	67
<i>mordax</i>	354	<i>eremogenes</i>	58
<i>sagitta</i> , <i>Amblyopus</i>	448	<i>erythrorhynchus</i>	61
<i>Poecilichthys</i>	293	<i>evermanni</i>	59
<i>Torrentaria</i>	293	<i>fario</i>	55
<i>Tylosurus</i>	195	<i>fortens</i>	163
<i>Tytlastes</i>	448	<i>fontinalis</i>	60
<i>sagittula</i> , <i>Euctenogobius</i>	441	<i>gairdneri</i> <i>beardslei</i>	57
<i>Gobionellus</i>	441	<i>crencentis</i>	57
<i>Saguaraca</i>	235	<i>gilberti</i>	58
<i>saida</i> , <i>Boreogadus</i>	209	<i>shasta</i>	58
<i>Gadus</i>	209	<i>stonei</i>	58
<i>saira</i> , <i>Cololabis</i>	198	<i>gairdnerii</i>	58
<i>Salar</i>	55	<i>gibber</i>	54
<i>lewisi</i>	56	<i>gibbsii</i>	57
<i>virginalis</i>	57	<i>gilberti</i>	58
<i>salar</i> , <i>Salmo</i>	55, 56	<i>gloveri</i>	56
<i>Salapia</i>	460	<i>gorbuscha</i>	54
<i>Salarias alticus</i>	463	<i>grönländicus</i>	66
<i>atlanticus</i>	463	<i>harengus</i>	61
<i>chiostictus</i>	463	<i>hearnei</i>	60
<i>margaritaceus</i>	463	<i>henshawi</i>	57
<i>rubro-punctatus</i>	463	<i>hudsonicus</i>	60
<i>salarias rubropunctatus</i>	463	<i>immaculatus</i>	60
<i>textilis</i>	463	<i>irideus</i>	58
<i>vomerinus</i>	463	<i>iridia</i>	58
<i>salarias rubropunctatus</i> , <i>Salarias</i>	463	<i>japonicus</i>	54
<i>Salariichthys</i>	463	<i>jordani</i>	57
<i>textilis</i>	463	<i>kennerlyi</i>	54, 55
<i>Saleima aurata</i>	339	<i>keta vel kayko</i>	54
<i>Salema</i>	337	<i>kisutch</i>	54, 55
<i>rhomboidalis</i>	338	<i>levigatus</i>	61
<i>tridens</i>	338	<i>lagocephalus</i>	54
<i>saliens</i> , <i>Blennius</i>	463	<i>latior</i>	64
<i>Oligoplites</i>	277	<i>kavaretus</i>	64
<i>Scomber</i>	277	<i>lewisi</i>	56
<i>Thunnus</i>	259	<i>lordii</i>	61
<i>salin</i> , <i>Sparus</i>	338	<i>lycaodon</i>	55
<i>sallae</i> , <i>Atherinichthys</i>	248	<i>macdonaldi</i>	57
<i>sallae</i> , <i>Algansea</i>	116	<i>mackenzii</i>	61
<i>Ceratichthys</i>	116	<i>(Mallotus) pacificus</i>	66
<i>sallae</i> , <i>Archomenidia</i>	248	<i>malina</i>	61
<i>Atherinichthys</i>	248	<i>maregravii</i>	100
<i>Salmo</i>	55	<i>marstoni</i>	61
<i>adirondaeus</i>	59	<i>mas</i>	56
<i>agassizii</i>	60	<i>masoni</i>	58
<i>agua-bonita</i>	59	<i>melampterus</i>	55
<i>alipes</i>	60	<i>milktshitch</i>	54
<i>alleganiensis</i>	60	<i>milktshitch</i>	54
<i>amethystinus</i>	59	<i>miltschitsch</i>	54
<i>ansonii</i>	55	<i>mülleri</i>	170
<i>aquilarum</i>	58	<i>mykiss</i>	56
<i>arabatch</i>	55	<i>agua-bonita</i>	59
<i>arcticus</i>	66	<i>macdonaldi</i>	57
<i>arcturus</i>	61	<i>myops</i>	163
<i>bairdii</i>	61	<i>namaycush</i>	59
<i>bathoeetor</i>	57	<i>naresi</i>	61
<i>beardslei</i>	57	<i>narka</i>	55
<i>bouvieri</i>	56	<i>nelsoni</i>	59
<i>brevicauda</i>	56	<i>nerka</i>	55
		<i>newberrii</i>	58

List of scientific names—Continued

	Page		Page
<i>Salmo nigrescens</i>	60	<i>saludanus</i> , Alburnops.....	132
<i>nitidus</i>	60	<i>Hudsonius</i>	132
<i>nummifer</i>	61	<i>salvadoris</i> , <i>Rœboides</i>	98
<i>omiscomaycus</i>	214, 215	<i>salvatoris</i> , <i>Pœcilia</i>	192
<i>omul</i>	61	<i>Salvelini</i>	60
<i>oquassa</i>	61	<i>alpinus</i>	60
<i>orientalis</i>	55	<i>Salvelinus</i>	60
(<i>Osmerus</i>) <i>olidus</i>	68	<i>agassizii</i>	60
<i>otsego</i>	64	<i>arcturus</i>	61
<i>ouananiche</i>	56	<i>aureolus</i>	60
<i>pallidus</i>	59	<i>fontinalis</i>	60
<i>parkei</i>	61	<i>malma</i>	61
<i>paucidens</i>	55	<i>spectabilis</i>	61
<i>penshinensis</i>	56	<i>marstoni</i>	61
<i>pleuriticus</i>	57	<i>naresii</i>	61
<i>pluvius</i>	61	<i>oquassa</i>	61
<i>protens</i>	54	<i>rossii</i>	60
<i>purpuratus</i>	56	<i>spectabilis</i>	61
<i>bouvieri</i>	56	<i>stagnalis</i>	60
<i>quinnat</i>	55	<i>timagamensis</i>	60
<i>rezalis</i>	56	<i>salvelinus</i> , <i>Salmo</i>	60
<i>richardi</i>	55	<i>salvini</i> , <i>Agonostomus</i>	254
<i>rivalis</i>	60	<i>Cotylopus</i>	448
<i>rivularis</i>	58	<i>Heros</i>	418
<i>roosevelti</i>	59	<i>Parapetenis</i>	418
<i>rossi</i>	59	<i>Pimeleodus</i>	157
<i>rossii</i>	60	<i>Rhamdia</i>	157
<i>salar</i>	55, 56	<i>Sicydium</i>	448
<i>ouananiche</i>	56	<i>sanctæ-helenæ</i> , <i>Caranx</i>	270
<i>salvelinus</i>	60	<i>Decapterus</i>	270
<i>sanguinolentus</i>	55	<i>Gymnothorax</i>	92
<i>saurus</i>	163	<i>Murena</i>	92
<i>scouleri</i>	54	<i>sanctæ-luciæ</i> , <i>Corvula</i>	345
<i>setigo</i>	56	<i>Vaerouqua</i>	345
<i>shasta</i>	58	<i>sanctæ-marthæ</i> , <i>Vomer</i>	275
<i>siscowet</i>	60	<i>sanctæ-petri</i> , <i>Vomer</i>	275
<i>siskawitz</i>	60	<i>sanctæ-rosæ</i> , <i>Ulvicola</i>	467
<i>smaragdus</i>	58	<i>sancti-eustatii</i> , <i>Callionymus</i>	450
<i>socialis</i>	66	<i>sancti-laurentii</i> , <i>Engyophrys</i>	220
<i>spectabilis</i>	61	<i>sancti-martini</i> , <i>Gobiesox</i>	490
<i>spilurus</i>	57	<i>sancti-pauli</i> , <i>Holocentrum</i>	236
<i>stagnalis</i>	60	<i>Holocentrus</i>	236
<i>stomias</i>	57	<i>Sander</i>	282
<i>stonei</i>	58	<i>sandvicensis</i> , <i>Gobius</i>	440
<i>striatus</i>	54	<i>Pimelepterus</i>	339
<i>symmetricus</i>	59	<i>sandwichensis</i> , <i>Balistes</i>	493, 494
<i>tahoensis</i>	57	<i>sanguifluus</i> , <i>Pœcilichthys</i>	290
<i>tapidina</i>	55	<i>sanguineus</i> , <i>Antennarius</i>	505
<i>thymallus</i>	66	<i>Apodichthys</i>	467
<i>tomia</i>	59	<i>Holocentrus</i>	363
<i>truncatus</i>	58	<i>Pythonichthys</i>	90, 91
<i>trutta</i>	55	<i>Sicyases</i>	490
<i>tschawytcha</i>	55	<i>sanguinolentus</i> , <i>Pomotis</i>	300
<i>tschawytshiformis</i>	54	<i>Salmo</i>	55
<i>tsupitch</i>	55	<i>santa-annæ</i> , <i>Gasterosteus</i>	238
<i>tudes</i>	61	<i>santa-annæ</i> , <i>Notolepidomyzon</i>	104
<i>tumbil</i>	164	<i>Pantosteus</i>	104
<i>umbilæ</i>	60	<i>santamarie</i> , <i>Moniana</i>	131
<i>urinus</i>	60	<i>Notropis</i>	131
<i>utah</i>	56	<i>sapidissima</i>	42
<i>virgatus</i>	57	<i>Clupea</i>	42
<i>warreni</i>	55	<i>sapidissimus</i> , <i>Salmo</i> (<i>Coregonus</i>).....	64
<i>whitei</i>	59	<i>saponaceus</i> , <i>Anthias</i>	316
<i>salmoides</i> , <i>Labrus</i>	297, 298	<i>Rypticus</i>	316
<i>Micropterus</i>	297	<i>sara</i> , <i>Cybius</i>	256
<i>salmonæ</i> , <i>Erimacra</i>	54, 54	<i>saragus</i> , <i>Lepodus</i>	265
<i>Lepomis</i>	268	<i>saratus</i> , <i>Apuriscus</i>	308
<i>Percæ</i>	282	<i>Sarchirus</i>	36
<i>salmonæus</i> , <i>Esox</i>	163, 172	<i>argenteus</i>	36
<i>Mugil</i>	40	<i>vittatus</i>	36
<i>Scombrocottus</i>	373	<i>Sareidium</i>	142
<i>salmonicolor</i> , <i>Merulinus</i>	407	<i>scopiferum</i>	142
<i>salmonides</i>	54	<i>Sarcura</i>	23
<i>Salmonoides</i>	54	<i>Sarda</i>	259
<i>Salmonopercæ</i>	214	<i>chiliensis</i>	259
<i>pellucida</i>	215	<i>lineolata</i>	259
<i>Salmo</i>	214	<i>orientalis</i>	259
<i>Salpa purpurascens variegata</i>	327	<i>sarda</i>	259
<i>saltans</i> , <i>Chorinemus</i>	277	<i>velox</i>	259
<i>saltator</i> , <i>Hemirhamphus</i>	199	<i>sarda</i> , <i>Sarda</i>	259
<i>Scomberoides</i>	277	<i>Scomber</i>	259
<i>saltatorius</i> , <i>Allicus</i>	463	<i>Sardina</i>	43
<i>saltatrix</i> , <i>Gasterosteus</i>	280	<i>pseudohippanica</i>	43
<i>Percæ</i>	280	<i>sardina</i> , <i>Atherina</i>	247
<i>Pomatomus</i>	230	<i>Hiarengula</i>	43

List of scientific names—Continued

	Page		Page
<i>sardina</i> , <i>Melaniris</i>	249	<i>saxicola</i> , <i>Pleuronectes</i>	228
<i>Menidia</i>	247	<i>Sebastichthys</i>	367
<i>Thyrida</i>	249	<i>say</i> , <i>Amphotistius</i>	28
<i>Sardinella</i>	43	<i>Raja</i>	28
<i>anchovia</i>	43	<i>sayanus</i> , <i>Aphredoderus</i>	215
<i>aurita</i>	43	<i>Scolopsis</i>	215
<i>Sardinia</i>	43	<i>Sayris</i>	197
<i>anchovia</i>	43	<i>bimaculatus</i>	197
<i>caerulea</i>	43	<i>hians</i>	197
<i>pseudohispanica</i>	43	<i>recurvirostra</i>	197
<i>sargoides</i> , <i>Chaetodon</i>	415	<i>serrata</i>	197
<i>Sargosomus</i>	412	<i>scaber</i> , <i>Antennarius</i>	505
<i>fluviatilis</i>	412	<i>Centropomus</i>	306
<i>Sargus</i>	338	<i>Chironectes</i>	505
<i>ambassis</i>	336	<i>Hexagrammus</i>	374
<i>argenteus</i>	338	<i>scabra</i> , <i>Echidna</i>	94
<i>aries</i>	338	<i>Lophius acute</i>	505
<i>caribæus</i>	338	<i>Trinectes</i>	229
<i>caudimacula</i>	338	<i>scabrata</i> , <i>Raja</i>	25
<i>flavolineatus</i>	338	<i>Raja</i>	25
<i>holbrooki</i>	338	<i>scabriceps</i> , <i>Cylindrosteus</i>	37
<i>humermaculatus</i>	338	<i>Paranotropsis</i>	125
<i>ovis</i>	338	<i>Photogenis</i>	125
<i>raucus</i>	338	<i>scabripinnis</i> , <i>Astyanax</i>	97
<i>rondeletii</i>	338	<i>Tetragonopterus</i>	97
<i>sargus</i>	338	<i>Scalaria</i>	264
<i>tridens</i>	338	<i>Scaphirhynchops</i>	35
<i>variegatus</i>	338	<i>Scaphirhynchus</i>	35
<i>vitula</i>	338	<i>platorhynchus</i>	35
<i>sargus</i> , <i>Diplodus</i>	338	<i>rafinesquei</i>	35
<i>Sargus</i>	338	<i>scaphiurus</i> , <i>Opisthognathus</i>	452
<i>Sparus</i>	338	<i>scaphopsis</i> , <i>Cœlorhynchus</i>	207
<i>Sarothrodus</i>	359	<i>Macurus</i> (<i>Cœlorhynchus</i>).....	207
<i>amplexocolis</i>	360	<i>Scaphorhynchus</i>	35
<i>atanaius</i>	360	<i>scapulare</i> , <i>Pristipoma</i>	332
<i>maculo-cinctus</i>	360	<i>scapularis</i> , <i>Anisotremus</i>	332
<i>nigrirostris</i>	360	<i>Strongylura</i>	195
<i>Sarritor</i>	395	<i>Tylosurus</i>	195
<i>frenatus</i>	395	<i>Scaridæ</i>	433
<i>leptorhynchus</i>	395	<i>Scarcina</i>	262
<i>sarritor</i> , <i>Prionotus</i>	407	<i>argyrea</i>	262
<i>Satanoperca</i>	424	<i>Scartella</i>	461
(<i>Satanoperca</i>) <i>crassilabris</i> , <i>Geophagus</i>	424	<i>brevipinnis</i>	461
<i>satiricus</i> , <i>Neoclinus</i>	458	<i>microstoma</i>	461
<i>Pterognathus</i>	458	<i>Scartes</i>	463
<i>satis parva et glabra</i> , <i>Pleuronectes</i>	217	<i>scartes</i> , <i>Fundulus</i>	177
<i>saturnus</i> , <i>Amblodon</i>	348	<i>Scartichthys</i>	463
<i>Rhinoscion</i>	348	<i>rubropunctatus</i>	463
<i>Saurechelys</i>	82	<i>Scartomyzon</i>	111
<i>cancrivora</i>	82	<i>cervinus</i>	111
<i>Saurida</i>	164	<i>rupiscartes</i>	111
<i>mediterranea</i>	163	<i>Scarus</i>	432, 433
<i>nebulosa</i>	164	<i>abildgardii</i>	431
<i>Saurus</i>	163	<i>acutus</i>	434
<i>anolis</i>	164	<i>alternans</i>	434
<i>argenteus</i>	277	<i>amplus</i>	432
<i>brevirostris</i>	163	<i>aracana</i>	433, 434
<i>griseus</i>	163	<i>atomarius</i>	431
<i>intermedius</i>	164	<i>aurofrenatus</i>	432
<i>longirostris</i>	163	<i>bolmani</i>	433
<i>lucioceps</i>	163	<i>brachialis</i>	433
<i>mexicanus</i>	163	<i>cæruleus</i>	434
<i>myops</i>	163	<i>(Catesby)</i>	432
<i>spixianus</i>	163	<i>chloris</i>	432
<i>truncatus</i>	163	<i>chrysopterus</i>	432
<i>saurus</i> , <i>Elops</i>	39	<i>circumnatus</i>	435
<i>Esox</i>	197	<i>coccineus</i>	432
<i>Oligoplites</i>	277	<i>cœlestinus</i>	435
<i>Salmo</i>	163	<i>compressus</i>	434
<i>Scomber</i>	277	<i>croicensis</i>	433, 434
<i>Scomberesox</i>	197	<i>cuzamilæ</i>	434
<i>Synodus</i>	163	<i>dentiens</i>	431
<i>saussurii</i> , <i>Brama</i>	265	<i>diadema</i>	433
<i>Taractes</i>	265	<i>distinctus</i>	432
<i>savanna</i> , <i>Murena</i>	78	<i>emarginatum</i>	433
<i>Muræsox</i>	78	<i>emblematicus</i>	435
<i>saxatilis</i> , <i>Catulus</i>	11	<i>erythrinoides</i>	432
<i>Chaetodon</i>	414	<i>evermanni</i>	434
<i>Glyphidodon</i>	415	<i>flavesceus</i>	433
<i>Johnius</i>	350	<i>flavomarginatus</i>	434
<i>Menticirrhus</i>	350	<i>flavo-marginatus</i>	434
<i>Perca</i>	307	<i>frondosus</i>	433
<i>Pœciliichthys</i>	287	<i>gibbus</i>	433
<i>Roccus</i>	307	<i>gnathodus</i>	434
<i>saxicola</i> , <i>Eosebastes</i>	367	<i>guacamala</i>	435
<i>Gymnothorax ocellatus</i>	93	<i>holocyaneos</i>	434

List of scientific names—Continued

	Page		Page
<i>Scarus hoplomystax</i>	432	<i>Sciæna ensifera</i>	345
humeralis.....	433	ericymba.....	346
insulæ-santæ-crusis.....	434	fusea.....	352
lacrimosus.....	432	gigas.....	352
lateralis.....	432	grisea.....	352
maschalespilos.....	433	icistia.....	346
melanotis.....	432	imberbis.....	348
miniofrenatus.....	432	imiceps.....	348
noyesi.....	434	lineata.....	307
nuchalis.....	434	maculata.....	436
obtusus.....	434	multofasciata.....	349
oxybrachius.....	432	oscitans.....	347
pepo.....	433	oscula.....	352
perrico.....	435	plumieri.....	333
pleianus.....	435	rubra.....	235
punctulatus.....	433	sciæra.....	348
quadrispinosus.....	434	tahmel.....	339
radians.....	432	undecimalis.....	305
rostratus.....	435	<i>Sciænidae</i>	99, 344
rubripinnis.....	433	<i>Sciænops</i>	348
spinidens.....	431, 432	ocellata.....	348
squalidus.....	433	sciæra, <i>Sciæna</i>	348
strigatus.....	433	Serraria.....	284
superbus.....	434	sciurus, <i>Hadropterus</i>	284
tæniopterus.....	433	Ophioscion.....	348
trilobatus.....	434	serrula, <i>Hadropterus</i>	284
trispinosus.....	434	scintillans, <i>Zastomias</i>	70
truncatus.....	433	<i>Scitaliscus</i>	473
turchesius.....	435	scitula, <i>Anchovia</i>	49
vaigiensis.....	431	Anchoviella.....	49
vetula.....	433, 434	scituliceps, <i>Synodus</i>	164
virginalis.....	433	scitulus, <i>Merulinus</i>	407
virens.....	433	Prionotus.....	407
viridis.....	432	sciurus, <i>Diplectrum</i>	318
seaurus, <i>Lycodopsis</i>	472	Hæmulon.....	330
scepticus, <i>Minnilus</i>	123	Sparus.....	329, 330
Notropis.....	123	<i>Sclerodermi</i>	491
Triglops.....	380	<i>Sclerognathus</i>	102, 103
<i>Schedophilopsis</i>	269	cyprinus.....	102
spinosus.....	269	cyprinella.....	102, 103
<i>Schedophilus</i>	268	meridionalis.....	104
heathi.....	268	<i>Sclerotis</i>	300
medusophagus.....	268	miniatus.....	300
<i>Schilbeodes</i>	155	scoffeldi, <i>Anchoviella</i>	49
gyrinus.....	155	Stolephorus.....	49
<i>Schipa</i>	34	<i>Scolecossoma</i>	9
<i>Schistorus</i>	310	<i>Scoliodon</i>	14
<i>Schizophallus</i>	184	lalandi.....	15
schmardæ, <i>Dasyatis</i>	28	latiandus.....	14
Pastinachus.....	27	longurio.....	15
schmidtii, <i>Edriolychnus</i>	508	porosus.....	15
schmidtii, <i>Hoplunnis</i>	81	terræ-novæ.....	14, 15
schneideri, <i>Ophichthys</i>	88	scolopacea, <i>Nemichthys</i>	83
Poecilia.....	190	scolopaceus, <i>Nemichthys</i>	83
schœpfi, <i>Cyclichthys</i>	502	scolopax, <i>Balistes</i>	245, 246
Diodon.....	502	Centricus.....	245
schœpfi, <i>Balistes</i>	495	Macrorhamphosus.....	246
Ceratacanthus.....	495	<i>Scolopsis sayanus</i>	215
scholaris, <i>Thyrsites</i>	261	<i>Scomber</i>	257
schomburgkii, <i>Pempheris</i>	323	alalunga.....	260
schoneveldii, <i>Cataphractus</i>	395	albacores.....	260
schrankii, <i>Hæmulon</i>	330	alletteratus.....	258
sehypa, <i>Antaceus</i>	34	auratus.....	258
<i>Sciadeichthys</i>	148	australasicus.....	258
emphysetus.....	148	balantiophthalmus.....	271
proops.....	148	bisus.....	259
troscheli.....	148	boops.....	270
<i>Sciaes pictus</i>	148	carangus.....	273
troscheli.....	148	chrysurus.....	276
(<i>Sciades</i>) <i>emphysetus</i> , <i>Bagrus</i>	148	colias.....	257, 258
sciadicus, <i>Fundulus</i>	177	crumenophthalmus.....	270, 271
<i>Zygocetes</i>	177	crysos.....	272
<i>Sciadonus</i>	483	dekayi.....	258
pedicellaris.....	483	diego.....	258
<i>Sciæna</i>	348	fasciatus.....	279
aluta.....	346	germo.....	260
aquila.....	61	gladius.....	263
argentea.....	334	gracilis.....	258
argyrea.....	341	grex.....	258
armata.....	273	gunneri.....	217
(<i>Bairdiella</i>) <i>bedotii</i>	346	hippos.....	273
caprodes.....	282, 283	ignobilis.....	273
citrina.....	350	japonicus.....	258
coro.....	333	lacertus.....	256
croker.....	349	latus.....	276
edwardi.....	353	macrophthalmus.....	258

List of scientific names—Continued

	Page		Page
<i>Scomber maculatus</i>	257, 258	<i>Scorpena calcarata</i>	371
<i>mediterraneus</i>	259	<i>colesi</i>	370
<i>pelagicus</i>	264	<i>crisolata</i>	372
<i>pelamides</i>	258	<i>dactyloptera</i>	370
<i>pelamis</i>	258	<i>dactylopterus</i>	370
<i>pelamitus</i>	259	<i>echinata</i>	372
<i>pelamys</i>	259	<i>grandicornis</i>	371
<i>plumieri</i>	271	<i>guttata</i>	371
<i>pneumatophorus</i>	257, 258	<i>histrio</i>	371
<i>quadripuntatus</i>	258	<i>inermis</i>	371
<i>regalis</i>	257	<i>massiliensis</i>	308
<i>rim</i>	273	<i>mystes</i>	371
<i>rochei</i>	258, 259	<i>nuttingi</i>	371
<i>ruber</i>	271	<i>occipitalis</i>	371
<i>saliens</i>	277	<i>pannosa</i>	371
<i>sarda</i>	259	<i>picta</i>	370
<i>saurus</i>	277	<i>plumieri</i>	370
<i>scombrus</i>	257	<i>polylepis</i>	370
<i>sloani</i>	260	<i>porcus</i>	370
<i>speciosus</i>	273	<i>rascacio</i>	370
<i>thazard</i>	259	<i>russula</i>	371
<i>thynnus</i>	259	<i>atlantica</i>	370
<i>trachurus</i>	270	<i>(Sebastoplus) sierra</i>	372
<i>undulatus</i>	258	<i>sonoræ</i>	371
<i>vernalis</i>	257	<i>stearnsi</i>	371
<i>zonatus</i>	277	<i>tridecimspinosus</i>	370
<i>Scomberesocidae</i>	197	<i>Scorpenichthyidae</i>	382
<i>Scomberesox</i>	197	<i>Scorpenichthys</i>	382
<i>brevirostris</i>	198	<i>lateralis</i>	377
<i>camperii</i>	197	<i>marmoratus</i>	382
<i>equirostrum</i>	197	<i>Scorpenidae</i>	363
<i>forsteri</i>	197	<i>Scorpenodes</i>	370
<i>rondeletii</i>	197	<i>xyris</i>	370
<i>saurus</i>	197	<i>Scorpidæ</i>	358
<i>scutellatum</i>	197	<i>scorpioides, Acanthocottus</i>	386
<i>storeri</i>	197	<i>Cottus</i>	386
<i>scomberius, Esox</i>	173	<i>Scorpius californiensis</i>	358
<i>Scomberoides</i>	260	<i>scorpius, Acanthocottus</i>	386
<i>saltator</i>	277	<i>Cottus</i>	386
<i>scomberoides, Coryphæna</i>	265	<i>scouleri, Salmo</i>	54
<i>Scomberomorus</i>	257	<i>scovelli, Siphostoma</i>	242
<i>concolor</i>	257	<i>Syriotes</i>	242
<i>maculatus</i>	257	<i>scovelli, Etheostoma</i>	293
<i>plumieri</i>	257	<i>scrippsi, Otophidium</i>	485
<i>regalis</i>	257	<i>scripta, Balistes</i>	495
<i>sierra</i>	257	<i>Osbeckia</i>	495
<i>Scombridae</i>	257	<i>scriptus, Balistes</i>	495
<i>Scombriformes</i>	256	<i>Gymnothorax</i>	92
<i>Scombrocottus</i>	373	<i>Pseudoscopus</i>	452
<i>salmonus</i>	373	<i>scutator, Isesthes</i>	462
<i>Scombroptidae</i>	297	<i>scuderi, Hæmulon</i>	330
<i>Scombrus alalunga</i>	260	<i>scutata, Echeineis</i>	449
<i>scombrus, Scomber</i>	257	<i>scutator, Belone</i>	196
<i>Scopelogys</i>	170	<i>scutatus, Ælurichthys</i>	148
<i>dispar</i>	170	<i>Bagre</i>	148
<i>tristis</i>	170	<i>scutellatum, Scomberesox</i>	197
<i>Scopelinus caninianus</i>	169	<i>Scutia</i>	95
<i>Scopelus</i>	169	<i>scuticaris, Bascanichtlys</i>	86
<i>affine</i>	169	<i>Sphagebranchus</i>	86
<i>andreae</i>	168	<i>scutiger, Icelus</i>	378
<i>arcticus</i>	170	<i>Rastrinus</i>	378
<i>benoiti</i>	169	<i>scutum, Achirus</i>	229
<i>coccol</i>	168, 169	<i>Solea</i>	229
<i>crassiceps</i>	233	<i>Scylliorhinus</i>	11
<i>engraulis</i>	168	<i>scylla, Exocoetus</i>	101
<i>glacialis</i>	170	<i>Hybopsis</i>	135
<i>gracilis</i>	169	<i>Scylliorhinidae</i>	11
<i>hygomi</i>	169	<i>Scylliorhinus</i>	11
<i>madeirensis</i>	167	<i>catulus (canicula)</i>	13
<i>metapoclamus</i>	168	<i>cephalus</i>	11
<i>mizolepis</i>	233	<i>indicus</i>	12
<i>muelleri</i>	170	<i>profundorum</i>	12
<i>rarus</i>	168	<i>retifer</i>	11
<i>scopifer, Phenacobius</i>	142	<i>Scyllium</i>	11
<i>scopiferum, Sarcidium</i>	142	<i>capense</i>	11
<i>scopiferus, Notropis</i>	132	<i>laticeps</i>	11
<i>scops, Gnathypops</i>	453	<i>retiferum</i>	11
<i>Scorpena</i>	370	<i>scyllium, Triakis</i>	14
<i>agassizii</i>	371	<i>Scymnus rostratus</i>	21
<i>albifimbria</i>	371	<i>Seyris</i>	274
<i>albofasciata</i>	371	<i>analis</i>	274
<i>americana</i>	393	<i>indica</i>	274
<i>americanus</i>	393	<i>Seytalichthys</i>	89
<i>atlantica</i>	370	<i>miurus</i>	89
<i>bergii</i>	372	<i>Seytalina</i>	473
<i>brasilensis</i>	371	<i>cerdale</i>	473
<i>bufo</i>	370	<i>Seytalindæ</i>	473

List of scientific names—Continued

	Page		Page
<i>Scytalinus</i>	473	<i>Sebastes semicinctus</i>	367
<i>Scytalophis</i>	87, 88	<i>serranoides</i>	365
<i>magnioculus</i>	87	<i>swifti</i>	367
<i>sebago</i> , <i>Salmo</i>	56	<i>wilsoni</i>	366
<i>Sebastes</i>	363	<i>Sebastolobus</i>	364
<i>auriculatus</i>	368	<i>alascanus</i>	364
<i>bougainvillei</i>	370	<i>altivelis</i>	364
<i>caurinus</i>	369	<i>Sebastomus</i>	367, 368
<i>elongatus</i>	368	<i>ayresii</i>	367
<i>fasciatus</i>	363, 369	<i>chlorostictus</i>	367
<i>glauceus</i>	364	<i>constellatus</i>	367
<i>helvomaeculatus</i>	367	<i>eos</i>	368
<i>imperialis</i>	370	<i>gillii</i>	368
<i>macrochir</i>	364	<i>rhodochloris</i>	367
<i>macrocephalus</i>	372	<i>rosaceus</i>	367
<i>marinus</i>	363	<i>rupestris</i>	368
<i>melanops</i>	364	<i>umbrosus</i>	367
<i>minutus</i>	370	<i>Sebastopsis</i>	370
<i>nebulosus</i>	369	<i>xyrus</i>	370
<i>nematophthalmus</i>	322	<i>Sebastopyr</i>	368
<i>nigrocinctus</i>	370	<i>ruberrimus</i>	368
<i>ovalis</i>	365	<i>Sebastosomus</i>	364
<i>paucispinis</i>	364	<i>aleuticus</i>	365
<i>regulus</i>	363	<i>ciliatus</i>	365
<i>rosaceus</i>	367	<i>flavidus</i>	364
<i>ruber</i>	368	<i>melanops</i>	365
<i>parvus</i>	368	<i>mystinus</i>	365
<i>viviparus</i>	364	<i>pinniger</i>	365
<i>Sebastichthys</i>	369, 370	<i>serranoides</i>	365
<i>alutus</i>	366	<i>simulans</i>	365
<i>atrovirens</i>	365	<i>seco</i> , <i>Luxilus</i>	115
<i>aurora</i>	366	<i>Sectator</i>	340
<i>carnatus</i>	369	<i>ocyurus</i>	340
<i>chlorostictus</i>	369	<i>sectatrix</i> , <i>Kyphosus</i>	340
<i>chrysomelas</i>	369	<i>Perca</i>	340
<i>constellatus</i>	367	<i>marina</i>	340
<i>diploproa</i>	367	<i>sector</i> , <i>Serrivomer</i>	84
<i>entomelas</i>	366	<i>secundodorsalis</i> , <i>Thunnus</i>	260
<i>fasciolaris</i>	369	<i>secundus</i> , <i>Caranx</i>	272
<i>introniger</i>	366	<i>sedentarius</i> , <i>Chactodon</i>	360
<i>levis</i>	368	<i>seemani</i> , <i>Arius</i>	150
<i>maliger</i>	369	<i>Galeichthys</i>	150
<i>miniatus</i>	365	<i>Selache</i>	20
<i>mystinus</i>	334, 365	<i>Selachii</i>	10
<i>nigrocinctus</i>	370	<i>selachops</i> , <i>Apterichthys</i>	84
<i>proriger</i>	366	<i>Sphagebranchus</i>	84
<i>var. brevispinis</i>	366	<i>Selachostomi</i>	36
<i>rastrelliger</i>	369	<i>Selanomus</i>	19
<i>rhodochloris</i>	367	<i>walkeri</i>	19
<i>rubrivinctus</i>	368	<i>Selar</i>	270
<i>rupestris</i>	368	<i>Seleima</i>	337, 339
<i>saxicola</i>	367	<i>aurata</i>	339
<i>serriceps</i>	369	<i>Selenaspis</i>	148
<i>sinensis</i>	368	<i>dowii</i>	148
<i>umbrosus</i>	367	<i>Selene</i>	275
<i>veixillaris</i>	369	<i>argentea</i>	275
<i>zacentrus</i>	368	<i>crstedii</i>	275
<i>Sebastomus</i>	369	<i>quadrangularis</i>	358
<i>serriceps</i>	369	<i>selene</i> , <i>Carpiodes</i>	103
<i>Sebastes</i>	108, 364, 370	<i>Luxilus</i>	132
<i>areus</i>	367	<i>Selenichthys</i>	216
<i>aleutianus</i>	365	<i>seleniris</i> , <i>Trachypterus</i>	216
<i>alexandri</i>	365	<i>selenops</i> , <i>Hiodon</i>	41
<i>atrorubens</i>	365	<i>Hyodon</i>	41
<i>ayresii</i>	367	<i>sellaris</i> , <i>Acanthocottus</i>	388
<i>bahoecki</i>	365	<i>Alvordii</i>	284
<i>clavilatus</i>	366	<i>Hadropterus</i>	284
<i>crameri</i>	367	<i>Porocottus</i>	388
<i>deani</i>	367	<i>sellicauda</i> , <i>Apogon</i>	295
<i>eigenmanni</i>	366	<i>Epinephelus</i>	311
<i>enphaeus</i>	367	<i>sellifer</i> , <i>Halichoeres</i>	428
<i>eos</i>	368	<i>Iridio</i>	428
<i>flavidus</i>	364	<i>Sema</i>	409
<i>gilberti</i>	369	<i>signifer</i>	409
<i>gillii</i>	368	<i>semiarimatus</i> , <i>Gasterosteus</i>	237
<i>goodii</i>	364	<i>semicinctus</i> , <i>Eosebastes</i>	367
<i>hopkinsi</i>	366	<i>Gillellus</i>	455
<i>jordani</i>	364	<i>Iridio</i>	427
<i>melanops</i>	365	<i>Julis</i>	427
<i>melanostomus</i>	366	<i>semicoronata</i> , <i>Seriola</i>	279
<i>nigrocinctus</i>	364	<i>semifasciata</i> , <i>Pileoma</i>	282
<i>ovalis</i>	366	<i>semifasciatum</i> , <i>Pileoma</i>	283
<i>paucispinis</i>	364	<i>Triakis</i>	14
<i>rosaceus</i>	364	<i>semifasciatus</i> , <i>Gobius</i>	441
<i>ruberrimus</i>	368	<i>Serranus</i>	317
<i>rufus</i>	366	<i>semiloricateus</i> , <i>Gasterosteus</i>	257

List of scientific names—Continued

	Page		Page
<i>semiluna</i> , Sparus.....	327	<i>serra</i> , Alepidosaurus.....	171
<i>semilunata</i> , Diana.....	264	<i>Gonenion</i>	280
<i>seminolis</i> , Fundulus.....	178	<i>Serrana</i>	353
<i>Zygonectes</i>	178	<i>hispanis</i>	353
<i>seminuda</i> , Albula.....	40	<i>Serranidae</i>	317
<i>Gila</i>	114	<i>serranoides</i> , Sebastosomus.....	365
<i>Gymneleotris</i>	438	<i>Serranus</i> <i>acanthophorus</i>	317
<i>seminudus</i> , Eleotris.....	438	<i>aculeatus</i> (oculatus).....	328
<i>Erynias</i>	445	<i>acutirostris</i>	315
<i>Gobius</i>	445	<i>aquidens</i>	319
<i>Lycias</i>	475	<i>albomaculatus</i>	317
<i>Lycodes</i>	475	<i>altivelis</i>	310
<i>Plecotomus</i>	160	<i>angustifrons</i>	311
<i>semiradiatus</i> , Lepidosteus.....	36	<i>arara</i>	311
<i>semiruber</i> , Labrus.....	425	<i>armatus</i>	313
<i>semiscaber</i> , Cottopsis.....	384	<i>aspersus</i>	310
<i>Cottus</i>	384	<i>bivittatus</i>	318
<i>semiscabra centroleura</i> , Uranidea.....	383	<i>bonaci</i>	314
<i>semispinosus</i> , Caranx.....	270	<i>brunneus</i>	314
<i>semisquamatum</i> , Pycnomma.....	438	<i>bulleri</i>	319
<i>Semitapicus</i>	100	<i>calopteryx</i>	319
<i>Semotilus</i>	116, 117	<i>camelopardalis</i>	315
<i>atromaculatus</i>	117	<i>capuena</i>	331
<i>thoreauanus</i>	117	<i>carauna</i>	309
<i>biguttatus</i>	137	<i>catus</i>	311
<i>cephalus</i>	117	<i>colonus</i>	320
<i>diplamius</i>	125	<i>conspersus</i>	311
<i>diplemia</i>	117	<i>coronatus</i>	308
<i>dorsalis</i>	117	<i>couchii</i>	308
<i>hammondii</i>	117	<i>courtadei</i>	310
<i>macrocephalus</i>	117	<i>creolus</i>	320
<i>notatus</i>	177	<i>cyclopomatus</i>	314
<i>olivaceus</i>	177	<i>decimalis</i>	314
<i>speciosus</i>	117	<i>dimidiatus</i>	314
<i>thoreauanus</i>	117	<i>dubius</i>	309
<i>senegalensis</i> , Vomer.....	275	<i>emarginatus</i>	315
<i>senilis</i> , Gambusia.....	185	<i>erythrogaster</i>	312
<i>senla</i> , Raja.....	25	<i>falcatus</i>	315
<i>sephen</i> , Raja.....	28	<i>fascicularis</i>	318, 319
<i>septemfasciatum</i> , Cichlosoma.....	315	<i>felinus</i>	311
<i>septemfasciatus</i> , Astatheros.....	421	<i>finbriatus</i>	319
<i>septentrionalis</i> , Gaidropsarus.....	421	<i>flavescens</i>	320
<i>Motella</i>	208	<i>furcifer</i>	315
<i>Perca</i>	208	<i>fuscus</i>	312
<i>septipinnis</i> , Ammodytes.....	307	<i>galens</i>	312
<i>Rhynchias</i>	451	<i>guasa</i>	310
<i>Serranus</i> <i>bonaci</i>	451	<i>gigas</i>	317
<i>serena</i> , Dionda.....	314	<i>humeralis</i>	310
<i>sergeanti</i> , Osmerus.....	144	<i>impetiginosus</i>	313
<i>Seriola</i>	67	<i>inermis</i>	314
<i>bipinnulata</i>	269, 276, 279	<i>interstitialis</i>	319
<i>bonariensis</i>	279	<i>irradians</i>	312
<i>boseli</i>	280	<i>itaiara</i>	319
<i>carolinensis</i>	279	<i>jacome</i>	311
<i>coronata</i>	280	<i>labriformis</i>	321
<i>declivis</i>	280	<i>lamprurus</i>	314
<i>dorsalis</i>	279	<i>latepictus</i>	319
<i>dubia</i>	280	<i>luciopercanus</i>	317
<i>dumerili</i>	279	<i>maculato-fasciatus</i>	311
<i>dussumieri</i>	278	<i>maculosus</i>	311
<i>falcata</i>	280	<i>margaritifer</i>	311
<i>gigas</i>	279	<i>marginatus</i>	311
<i>jalandi</i>	279	<i>mentzelii</i>	311
<i>ligulata</i>	280	<i>morio</i>	312
<i>mazatlanana</i>	279	<i>morhua</i>	310
<i>pinnulata</i>	278	<i>mystacinus</i>	310
<i>proxima</i>	279	<i>nigriculus</i>	310
<i>rivoliiana</i>	279	<i>nigritus</i>	312
<i>semicoronata</i>	280	<i>niveatus</i>	310, 311
<i>stearnsi</i>	279	<i>oculatus</i>	328
<i>succincta</i>	278	<i>ocyurus</i>	318
<i>zonata</i>	279	<i>olifax</i>	314
<i>Seriolithys</i>	279	<i>ouatalibi</i>	309
<i>Seriolidæ</i>	278	<i>panamensis</i>	308
<i>Serioliophus</i>	280	<i>(Paralabrax) deweegeri</i>	319
<i>carangoides</i>	280	<i>petrosus</i>	313
<i>Seriphus</i>	353	<i>phaeton</i>	309
<i>politus</i>	353	<i>phoebe</i>	319
<i>serotinus</i> , Accipenser.....	35	<i>piranga</i>	310
<i>Acipenser</i>	33	<i>praestigator</i>	319
<i>Serpens</i> <i>marinus</i> <i>maculosus</i>	87	<i>psittacinus</i>	312
<i>serpens</i> , Gempylus.....	261, 262	<i>quinquefasciatus</i>	318
<i>Lycodes</i>	475	<i>radialis</i>	318
<i>Opsurus</i>	85	<i>radialis</i>	312
<i>serpentina</i> , Muræna.....	77	<i>remotus</i>	315
<i>serpentinus</i> , Blennius.....	470, 471	<i>repandus</i>	313
<i>Derichthys</i>	77	<i>rupestris</i>	313

List of scientific names—Continued

	Page		Page
<i>Serranus semifasciatus</i>	317	<i>Sicyases fasciatus</i>	490
<i>stadthouderi</i>	311	<i>hæres</i>	490
<i>teniops</i>	309	<i>punctulatus</i>	490
<i>tigris</i>	315	<i>rubiginosus</i>	490
<i>tinca</i>	315	<i>sanguineus</i>	490
<i>undulosus</i>	315	<i>Sicydium</i>	447
<i>varius</i>	310	<i>antillarum</i>	447
<i>Serraria</i>	284	<i>buscki</i>	447
<i>sciera</i>	284	<i>caguaitæ</i>	447
<i>serrula</i>	284	<i>gymnogaster</i>	447
<i>serrata</i> , <i>Fistularia</i>	245	<i>plumieri</i>	447
<i>Sayris</i>	197	<i>punctatum</i>	447
<i>serrato-granulata</i> , <i>Perca</i>	281	<i>salvini</i>	448
<i>serratum</i> , <i>Hæmulon</i>	329	<i>siragus</i>	447
<i>serratus</i> , <i>Gasterosteus</i>	237	<i>vincente</i>	447
<i>Naucrates</i>	278	<i>Sicyogaster</i>	488
<i>serriiceps</i> , <i>Sebastichthys</i>	369	<i>Sidera</i>	93
<i>Sebastocarus</i>	369	<i>castanea</i>	92
<i>serriifer</i> , <i>Conodon</i>	333	<i>chlevastes</i>	93
<i>Serrivomer</i>	84	<i>verrilli</i>	93
<i>beanii</i>	84	<i>Slderea</i>	93
<i>sector</i>	84	<i>picta</i>	93
<i>serrula</i> , <i>Anisotremus</i>	333	<i>sidera</i> , <i>Muraena</i>	93
<i>Chalinura</i>	204	<i>siderius</i> , <i>Hybognathus</i>	140
<i>Hadropterus scierus</i>	284	<i>Hyborhynchus</i> (<i>Hybognathus</i>).....	140
<i>Priacanthus</i>	323	<i>sieboldii</i> , <i>Heros</i>	423
<i>Pristipoma</i>	333	<i>Sierra</i>	257
<i>Pseudopriacanthus</i>	323	<i>cavalla</i>	257
<i>Serraria</i>	284	<i>sierra</i> , <i>Dorythamphus</i>	243
<i>sessilicauda</i> , <i>Monolepis</i>	220	<i>Pontinus</i>	372
<i>setapinnis</i> , <i>Vomer</i>	275	<i>Scomberomorus</i>	257
<i>Zeus</i>	274, 275	<i>Scorpena</i> (<i>Sebastoplus</i>).....	372
<i>setapinnis cubensis</i> , <i>Vomer</i>	275	<i>sierrita</i> , <i>Tylosurus</i>	196
<i>Setarches</i>	372	<i>sigalutes</i> , <i>Gilbertidia</i>	393
<i>guntheri</i>	372	<i>Gilbertina</i>	392, 393
<i>parmatus</i>	372	<i>Sigmistes</i>	391
<i>setifer</i> , <i>Argyrius</i>	275	<i>caulias</i>	391
<i>Monacanthus</i>	494	<i>Sigmops</i>	72
<i>setiger</i> , <i>Dasycottus</i>	392	<i>stigmaticus</i>	72
<i>setigerus</i> , <i>Lophiomus</i>	504	<i>Sigmurus</i>	348
<i>Lophius</i>	504	<i>vermicularis</i>	348
<i>setipinnis</i> , <i>Argyreus</i>	275	<i>Signalosa</i>	46
<i>setosus</i> , <i>Mugil</i>	254	<i>atchafalaye</i>	46
<i>Querimana</i>	254	<i>vanhyningi</i>	47
<i>Tetraodon</i>	500	<i>mexicana</i>	47
<i>seu conger</i> , etc., <i>Muraena</i>	94	<i>campi</i>	47
<i>severus</i> , <i>Heros</i>	416	<i>petenensis</i>	47
<i>sexcornutus</i> , <i>Ostracion</i>	497	<i>signata</i> , <i>Cyclothone</i>	72
<i>sexdeclm-lamellata</i> , <i>Echeneis</i>	449	<i>signatus</i> , <i>Bathymaster</i>	451
<i>sexfasciatus</i> , <i>Cichlosoma</i>	421	<i>Hypoprius</i>	17
<i>Hæmulon</i>	329	<i>Microgobius</i>	443
<i>sexfasciatus</i> , <i>Astatheros</i>	421	<i>signifer</i> , <i>Bryttus</i>	209
<i>Hæmulon</i>	329	<i>Centristhmus</i>	319, 320
<i>sex-maculatus</i> , <i>Diodon</i>	501	<i>Chatoëssus</i>	44
<i>sex-radiatus</i> , <i>Polynemus</i>	409	<i>Coregonus</i>	66
<i>shasta</i> , <i>Cottus</i>	383	<i>Monacanthus</i>	494
<i>Salmo</i>	58	<i>Neotrophus</i>	423
<i>gairdneri</i>	58	<i>Sema</i>	409
<i>shavlanus</i> , <i>Cetorhinus</i>	20	<i>Stypodon</i>	113
<i>shufeldti</i> , <i>Gobius</i>	439	<i>Tyhmallus</i>	66
<i>Mancalias</i>	508	<i>silenus</i> , <i>Zaprora</i>	452
<i>Rhinogobius</i>	439	<i>Siluridae</i>	147
<i>Typhlosaras</i>	508	<i>Silurus bagre</i>	147
<i>shumardi</i> , <i>Alburnops</i>	134	<i>belis</i>	149
<i>Hadropterus</i>	285	<i>catus</i>	153
<i>Hybopsis</i>	134	<i>clarias</i>	158, 159
<i>Imostoma</i>	285	<i>cornutus</i>	245, 246
<i>slalis</i> , <i>Argentina</i>	68	<i>cupreus</i>	153
<i>Corvula</i>	345	<i>felis</i>	148
<i>Noturus</i>	155	<i>fuscus</i>	153
<i>Vacuogua</i>	345	<i>galeatus</i>	159
<i>sibbaldi</i> , <i>Syngnathus</i>	343	<i>gyrinus</i>	155
<i>Siboma</i>	120	<i>hertzbergi</i>	148
<i>atraria</i>	119	<i>limosus</i>	155
<i>conformis</i>	120	<i>lividus</i>	153
<i>crassicauda</i>	120	<i>marinus</i>	147, 148
<i>slcana</i> , <i>Cerna</i>	312	<i>melas</i>	154
<i>siciferum</i> , <i>Holocentrum</i>	236	<i>militaris</i>	159
<i>sicculum</i> , <i>Chirostoma</i>	251	<i>nebulosus</i>	155
<i>sicculus</i> , <i>Labidesthes</i>	251	<i>olivaris</i>	155
<i>sicula</i> , <i>Pimelopterus</i> <i>boni</i>	340	<i>punctatus</i>	151, 152
<i>siculus</i> , <i>Lampugnus</i>	265	<i>viscosus</i>	155
<i>Sicya</i>	447	<i>xanthocephalus</i>	154
<i>Sicyases</i>	490	<i>var. fuscus</i>	153
<i>carneus</i>	490	<i>Silus</i>	68
<i>erythrops</i>	490	<i>ascanil</i>	68

List of scientific names—Continued

	Page		Page
silus, Argentina	68	skib, Pomatomus	280
sima, Caremitra	401	Skiffia	183
Careproctus	401	bilineata	183
Electris	436	lerma	183
Simenchelyidae	78	multipunctata	183
Simenchelys	78	variegata	183
parasiticus	78	sloani, Chauliodus	71
similis, Amphistichus	411	Leleobatus	29
Fundulus	177	Scomber	260
Haemulon	330	Urobatis	29
Hydrargyra	175, 177	sloani vermiculatus, Urobatis	29
Iridio	427	sluiteri, Brannerella	464
Rhinochobius	439	Smaragdus	440
simillima, Palometa	266	costalesi	441
simillimus, Gerres	342	stigmaticus	441
Poronotus	266	valenciennesi	441
simotera, Ulocentra	286	smaragdus, Eleotris	437
simoterum, Hyostoma	286	Erotelis	437
simplex, Aplurus	261	Gobius	440, 441
Crenidens	339	Gobionellus	441
Pseudoscarus	435	Salmo	58
Tetragonurus	261	Smaris	340
simplicidens, Girella	339	lineatus	342
Incisidens	339	martinicus	340
simpsoni, Ictalurus	152	smaris, Sparus	340
simula, Chalinura	204	Smecticus	316
simulans, Hemiplites	304	bicolor	316
Sebastosomus	365	smiridus, Merluccius	214
Synodus	164	smithi, Ceratichthys	145
simulus, Ophiocion	348	Lepidosteus	37
simus, Alburnellus	135	smithii, Cliola	145
Careproctus	401	Cyprinus (Abramis)	41
Cataetys	480	Halieutichthys	507
Creagrutus	98	snideri, Catostomus	106
Hybopsis	135	Dialarchus	391
Menticirrhus	351	Gnathypops	453
Rhynchichthys	140	Hyporhamphus	199
sinaloa, Paralichthys	224	Oligocottus	391
Siphostoma	241	Palometa	267
Syngnathus	241	Peprilus	267
Umbrina	350	Sobaco	492
sinensis, Hispanicus	368	sobaco, Balistes	492
Sebastichthys	368	Canthidermis	492
Trygon	28	sobra, Mesoprion	326
sinuosus, Pomadasys	335	socialis, Salmo	66
Rhonciscus	335	socius, Alburnus	124
Siphagonus barbata	394	Notropis	124
barbatus	394	socorroense, Thalassoma	423
Siphateles	119, 120, 122	socorroensis, Thalassoma	423
bicolor	122	sogo, Holocentrus	235
columbianus	122	sobar, Chætodon	362
formosus	122	solandri, Acanthocybium	256
mohavensis	123	Cybium	256
obesus	122	solaris, Orthogoriscus	503
olivaceus	122	Solea browni	221
oregonensis	122	fischeri	230
vittatus	122	fonsecensis	230
Siphostoma	240	gronovii	229
areum	242	klunzingeri	229
auliscus	240	lunata	217
barbare	240	mazatlan	230
brevicaudum	241	panamensis	230
carinatum	240	pilosa	230
crinigerum	241	punctata	217
dendriticum	242	scutum	229
exile	243	soleæformis, Rhombus	218
florida	241	Solenostomus	245
mackayi	240	Soleotalpa	230
poeyi	241	unicolor	230
robertsi	241	solis, Lepomis	300
scovelli	242	Pomotis	300
sinaloa	241	Somniosidae	21
starksi	242	Somniosus	21
torrei	242	brevipinna	21, 22
zatropis	243	microcephalus	22
sfragus, Sicydium	447	somnolentus, Eleotris	436
Siremo guentheri	483	Lobotes	323
messieri	480	sonnerati, Opisthognathus	452
nigripinnis	480	sonntagii, Antennarius	506
sisco, Agrayosomus	62	Chironectes	506
huronius, Leucichthys	62	sonora, Atherinopsis	252
Leucichthys	62	Scorpana	371
siscowet, Cristivomer	60	sonoriensis, Catostomus	106
Salmo	60	Girardinus	189
siskawitz, Salmo	60	soporator, Bathygobius	440
sluslawi, Leuciscus	118	Gobius	440
Richardsonius	118	sordida, Murena	94

List of scientific names—Continued

	Page		Page
sordidus, <i>Chaetodon</i>	414	speciosus, <i>Pomotis</i>	301
Citharichthys.....	218	Scomber.....	273
Psettichthys.....	218	Semotilus.....	117
Verilus.....	328	spectabilis, <i>Pæciliichthys</i>	291
spadicea, <i>Dionda</i>	144	Salmo.....	61
Lampetra.....	9	Salvelinus.....	61
spadiceus, <i>Centruraphis</i>	87	malma.....	61
Tetrapleurodon.....	9	spectrum, <i>Careproctus</i>	402
spallanzani, <i>Isurus</i>	19	Lophius.....	505
Leptocephalus.....	79	Osmerus.....	67
Sparactodon.....	280	mordax.....	67
malin.....	280	spectrunculus, <i>Hybopsis</i>	134
Sparidae.....	336	speculiger, <i>Exocoetus</i>	201
Sparisoma.....	431, 433	speculigera, <i>Lampadena</i>	167
abildgaardi.....	432	spelæus, <i>Amblyopsis</i>	195
atomarium.....	431	spengleri, <i>Sphæroides</i>	498
aurofrenatum.....	432	Tetrodon.....	498
brachiale.....	433	spet, <i>Esox</i>	255
chrysoterpum.....	432	Sphæroides tuberculatus.....	498
cyanole.....	432	Sphagebranchus.....	84
distinctum.....	432	anguiformis.....	84, 91
flavescens.....	433	kendalli.....	84, 85
frondosum.....	433	ophioneus.....	84
hoplomystax.....	432	rostratus.....	84
lorito.....	432	scuticaris.....	86
maschalespilos.....	433	selachops.....	84
niphobles.....	432	teres.....	86
oxybrachium.....	432	(Sphagebranchus) anguiformis, <i>Ophichthys</i>	84
radians.....	432	sphenops cuneata, <i>Mollienesis</i>	193
rubripinne.....	433	spenops, <i>Mollienesis</i>	192
strigatum.....	433	Pœcilia.....	192
viride.....	432	vandepolli, <i>Mollienesis</i>	193
xystrodon.....	431	Sphæroide tubercule.....	498
Sparisomide.....	431	Sphæroides.....	498
sparoides, <i>Labrus</i>	304, 305	asterias.....	498
Pomoxis.....	305	harperi.....	488
Sparus.....	418	les.....	498
abildgaardi.....	432	(Sphæroides) eulepidotus, <i>Tetrodon</i>	498
annularis.....	338	Sphæroides.....	498
argenteus.....	337	angusticeps.....	498
argyrops.....	336	asterias.....	498
atlanticus.....	310	eulepidotus.....	498
aureo-ruber.....	432	harperi.....	498
aureus.....	302	lobatus.....	498
bajonado.....	336	maculatus.....	498
brachysomus.....	337	marmoratus.....	498
castaneola.....	265	nepelus.....	498
caxis.....	325	spengleri.....	498
chromis.....	413	tuberculatus.....	498
chrysomelanurus.....	311	Sphyraena.....	255
chrysops.....	336	acus.....	196, 197
chrysurus.....	327	argentea.....	255
cruentatus.....	308	aureoviridis.....	305
falcatus.....	425	barracuda.....	255
niger.....	265	becuna.....	255
ovicephalus.....	338	borealis.....	255
pagrus.....	337	ensis.....	255
probatocephalus.....	338	gusachano.....	255
radiatus.....	426	güntheri.....	255
raii.....	265	lucasana.....	255
rhomboides.....	337	picudilla.....	255
salin.....	338	sphyraena.....	255
sargus.....	338	picuda.....	255
seiturus.....	329, 330	viridensis.....	255
semiluna.....	327	vulgaris.....	255
smaris.....	310	sphyraena, <i>Argentina</i>	68
surinamensis.....	424	Chirostoma.....	251
synagrus.....	327	Esox.....	255
tetracanthus.....	325	Sphyraena.....	255
vermicularis.....	327	sphyraenarum, <i>Echeneis</i>	449
virginicus.....	332	Sphyrenidae.....	225
vittatus.....	332	Sphyrenops.....	297
xanthurus.....	336	bairdiana.....	297
Spathula.....	36	biardianus.....	297
spathula, <i>Polyodon</i>	36	sphyrenops, <i>Lestidiops</i>	166
Squalus.....	36	Sphyrichthys.....	18
Spathularia.....	36	Sphyrna.....	18
reticulata.....	36	zygæna.....	18
spatula, <i>Atractosteus</i>	38	Sphyrnidae.....	17
leclius.....	379	Spicara.....	340
Lepisosteus.....	38	flexuosa.....	340
Spatularia reticulata.....	36	martinica.....	310
speciosa, <i>Gambusia</i>	185	spicifer, <i>Hippichthys</i>	243
speciosus, <i>Gnathanodon</i>	273	Syngnathus.....	243
Gnathodon.....	273	spillmani, <i>Alvordius</i>	283

List of scientific names—Continued

	Page		Page
spilonotus, Cypselurus.....	202	Squalidæ.....	21
Exocoetus.....	202	qualidus, Scarus.....	433
spilonota, Poecilia.....	192	squalipeta, Eche-neis.....	449
spilonotus, Coregonus.....	65	Squalius.....	117
Monacanthus.....	495	alicæ.....	119
Prosopium.....	65	copei.....	119
spilopterus, Citharichthys.....	218, 219	eruoreus.....	119
Photogenis.....	129	galtie.....	118
spilopus, Exocoetus.....	201	hyalope.....	117
spilota, Uranidea.....	385	lemmoni.....	119
spilopterogylus, Balistes.....	492	photogenis.....	123
spilotum, Etheostoma nianguæ.....	285	proriger.....	120
spilotus, Hypohomus.....	285	rhomaleus.....	119
spilura, Mollienesis.....	192	Squaloidei.....	21
spilurus, Archocentrus.....	420	Squalus.....	13, 21
Curimatus.....	100	acanthias.....	21
Heros.....	420	acronotus.....	16
Poecilia.....	192	americanus.....	19
Salmo.....	57	arcticus.....	14
Spinachia.....	239	argus.....	12
spinachia.....	239	borealis.....	21, 22
vulgaris.....	239	bruceus.....	22
spinachia, Gasterosteus.....	239	caeruleus.....	17
Spinachia.....	239	canicula.....	11
Spinachiinæ.....	239	canis.....	13
Spinax (Acanthias) suckleyi.....	21	carcharias.....	15, 20
Spinax fabricii.....	21	(Carcharias) terræ-novæ.....	14
hillianus.....	21	cetaceus.....	20
spinax, Squalus.....	21	cirratus.....	12
spinescens, Auliscops.....	239	commersonii.....	15
spinicauda, Acanthenchelys.....	89	cornubicus.....	19
spinicephalus, Exoglossum.....	146	edentulus.....	31
Spinicephalus.....	145	elephas.....	20
fibulatus.....	145	ferox.....	19
spiniceps, Photocorynus.....	509	galeus.....	13, 14
spinidens, Scarus.....	431, 432	glacialis.....	22
spinifer, Acanthonus.....	482	glauceus.....	17
Engraulis.....	50	griseus.....	11
spinifera, Anchoviella.....	50	gunneri.....	17
spiniger, Icelus.....	378	hirundinaceus.....	20
Spinivomer.....	84	homanus.....	20
goodei.....	84	isodus.....	20
spinosa, Acanthemblemaria.....	465	littoralis.....	19
Malthopsis.....	507	longimanus.....	15
Thysanocara.....	160	maerodus.....	19
spinosissimum immaculatum, Cichlasoma.....	420	maximus.....	20
spinosissimus, Archocentrus.....	420	microcephalus.....	21, 22
Aspidophorus.....	394	monensis.....	19
Diodon.....	501	mustelus.....	13, 14
Heros (Cichlasoma).....	420	nasus.....	19
spinosus, Acanthurus.....	160	norwegianus.....	22
Calycilepidotus.....	381	obscurus.....	16
Centronotus.....	281	obtusus.....	15
Cyclichthys.....	502	pelegrinus.....	20
Cyclopterus.....	398	pennanti.....	19
Diodon.....	502	platyodon.....	15
Eumicrotremus.....	398	porosus.....	15
Notacanthus.....	76	pristis.....	23
Platophrys.....	217	punctatus.....	12, 14, 15
Polyipnus.....	74	punctulatus.....	12
Rhinobatos.....	24	rashleighanus.....	20
Rhinobatus.....	24	rostratus.....	19
Rhomboidichthys.....	217	spathula.....	36
Schedophilopris.....	269	spinax.....	21
Squalus.....	22	spinosus.....	22
Trachinotus.....	276	squatina.....	22
spinulosa, Chalinura.....	204	stellaris.....	11
Malthopsis.....	507	suckleyi.....	21
spinulosus, Gasterosteus.....	237	tiburo.....	16, 17
Spirinchus.....	67	vulpes.....	18
thaleichthys.....	67	vulpinus.....	18
spirlingulus, Leuciscus.....	128	zygana.....	18
spixianus, Saurus.....	163	squamata, Swainia.....	285
spixii, Arius.....	150	Tigoma.....	119
Pinelodus.....	150	squamatus, Etheostoma (Hadropterus).....	285
Platysomus.....	275	squamiceps, Clari-cola.....	292
Vomer.....	275	Etheostoma.....	292
splendens, Beryx.....	234	squamilentus, Ceratichthys.....	136
Exocoetus.....	200	Couesius.....	136
splendida, Petenia.....	423	Paralichthys.....	224
splendatum, Pristipoma.....	332	Squamipennes.....	358
spleniatus, Anisotremus.....	332	squamipinnis, Cynoscion.....	355
spongicola, Evermannichthys.....	446, 447	Gerres.....	342
Garmannia.....	446	Otolithus.....	355
spongiosa, Halietæa.....	508	squamosa viridis, Acus maxima.....	36
Spratelloides bryoporus.....	41	squamosus, Trachurus.....	272

List of scientific names—Continued

	Page		Page
squamulosus, Chaetodon.....	361	stellatus, Fario.....	56
Squatina.....	22	Mustellus.....	13
angelus.....	22	Platichthys.....	226
californica.....	22	Pleuronectes.....	226
dumeril.....	22	Tetraodon.....	497, 499
fimbriata.....	22	Valenciennellus.....	73
laevis.....	22	Xurel.....	273
lewis.....	22	stelleri, Cottus.....	381
oculata.....	22	Cyclopterus.....	398
raja.....	23	Hexagrammos.....	373, 374
squatina.....	22	Liparops.....	398
vulgaris.....	22	Myoxocephalus.....	387
Squatina, Squalus.....	22	Stellerina.....	394
Squatina.....	22	xyosterna.....	394
Squatinidae.....	22	Stellicarens.....	347
Squatinoidei.....	22	zestocarus.....	347
squeteague, Labrus.....	355	Stellifer.....	346
maculatus, Labrus.....	355	colonensis.....	347
stabuliforis, Raja.....	25	ericymba.....	346
stadthouderi, Serranus.....	311	ilicebrosus.....	347
stagnalis, Salvelinus.....	60	lanceolatus.....	346
stabilis, Auchenistius.....	457	melanochir.....	347
Monosira.....	344	microps.....	346
stanleyi, Coregonus.....	65	mindii.....	347
Prosopium.....	65	oscitans.....	347
starksi, Menidia.....	247	stellifer.....	346
Siphostoma.....	242	zestocarus.....	347
Stolephorus.....	48	stellifer, Bodianus.....	346
Syngnathus.....	242	Stellifer.....	346
Starksia.....	456	Xenisma.....	179
cremnobates.....	456	stellifera, Corvina.....	346
holderi.....	456	Xenisma.....	179
starri, Pomadasys.....	334	stelliferoides, Bassogigas.....	482
Stathmonotus.....	465	Neobythites.....	482
hemphilli.....	465	Stelliferus.....	346
tekla.....	466	ilicebrosus.....	347
stearnsi, Blennius.....	466	zestocarus.....	347
Colotrigla.....	466	stellio, Perca.....	310
stearnsi, Corvina.....	348	Rhinobatos.....	23
Lutjanus.....	325	Rhinobatus.....	23
Prionotus.....	406	stellulata, Raja.....	26
Roncodor.....	348	Stenesthes.....	336
Scorpaena.....	371	(Stenobranchius) leucopsarum, Myctophum.....	168
Seriola.....	279	Stenodus.....	61
Stegastes.....	415	mackenzii.....	61
bairdii.....	415	Stenomelopus.....	498
chrysurus.....	415	Stenotoma.....	336
dorsalis.....	416	Stenotomus.....	336
imbricatus.....	415	caprinus.....	336
niveatus.....	416	chrysops.....	336
Steindachnerella.....	203	versicolor.....	336
steindachneri, Argo.....	265	Stephanoberycidae.....	232
Arius.....	151	Stephanoberyx.....	232
Cichlasoma.....	419	gillii.....	232
Diabasis.....	330	monae.....	232
Haemulon.....	330	Stephanolepis.....	494
Ophioblennius.....	464	stephanophrys, Prionotus.....	407
Parapetenia.....	419	Stereolepis.....	308
Rhinoptera.....	31	californicus.....	308
Tachysurus.....	151	gigas.....	308
Thalassoma.....	429	Sterleta.....	33
Steindachneria.....	203	Sterletus.....	33, 34
argentea.....	203	sterletus, A verruncus.....	395
Steindachneridion.....	203	Ceraticthys.....	139
Steinergia.....	266	Macrhybopsis.....	139
rubescens.....	266	Sternarchus.....	101
Steinigeriidae.....	266	rostratus.....	101
steligdolepis, Macrourus.....	205	virescens.....	101
Macurus (Macrourus).....	205	Sternias.....	380
Steligdonotus.....	379	xenosthesus.....	380
latifrons.....	379	sternica, Gasteropelecus.....	100
Stelgis.....	395	Sternoptichide.....	73
vulsus.....	395	Sternoptix.....	73
Stelgistrops.....	379	diaphana.....	73
beringiana.....	379	obscura.....	73
Stelgistrum beringianum.....	379	Sternopyx.....	73
Stelliferes, les.....	346	gardenii.....	266
stellaris, Squalus.....	11	mediterraneus.....	74
stellata, Halientem.....	507	obscura.....	73
stellatus, Acipenser.....	34	offersi.....	74
Apogonichthys.....	296	Sternopygus.....	101
Astrapogon.....	296	darienensis.....	101
Bodianus.....	309	humboldti.....	101
Caranx.....	273	lineatus.....	101
Cephalopholis.....	309	tumifrons.....	101

List of scientific names—Continued

	Page		Page
<i>Sternotremia</i>	215	<i>stomias</i> , <i>Atheresthes</i>	221
<i>isolepis</i>	215	<i>Bathytroctes</i>	52
<i>stevensii</i> , <i>Thaleichthys</i>	66	<i>Chasmistes</i>	108
<i>Stichæida</i>	469	<i>Narctes</i>	52
<i>Stichæus</i>	469	<i>Platysomaticthys</i>	221
<i>punctatus</i>	469	<i>Salmo</i>	57
<i>stigma</i> , <i>Gymnelis</i>	477	<i>Trisotropis</i>	314
<i>Ophidium</i>	477	<i>Stomiatiidæ</i>	69
<i>stigmaea</i> , <i>Ulocentra</i>	287	<i>Stomiatioides</i>	69
<i>stigmæum</i> , <i>Boleosoma</i>	287	<i>Stomocatus</i>	105
<i>stigmaeus</i> , <i>Citharichthys</i>	219	<i>Stomodon bilinearis</i>	214
<i>stigmanotus</i> , <i>Ahynnodontophis</i>	94	<i>stonei</i> , <i>Hydrophlox</i>	127
<i>stigmatius</i> , <i>Ceratiichthys</i>	137	<i>Notropis</i>	127
<i>Gobionellus</i>	441	<i>Salmo</i>	58
<i>stigmatistium</i> , <i>Lepophidium</i>	485	<i>gairdneri</i>	58
<i>Leptophidium</i>	485	<i>storeri</i> , <i>Acipenser</i>	34
<i>stigmatius</i> , <i>Sigmops</i>	72	<i>Aledon</i>	503
<i>Smaragdus</i>	441	<i>Cetomimus</i>	172
<i>stigmatura</i> , <i>Algansea</i>	116	<i>Leuciscus</i>	117
<i>Bollmannia</i>	443	<i>Scomberesox</i>	197
<i>Erogala</i>	129	<i>storeria</i> , <i>Cichla</i>	304
<i>stigmaturus</i> , <i>Gobius</i>	439	<i>storerianus</i> , <i>Erinemus</i>	137
<i>Photogenis</i>	129	<i>Rutilus</i>	137
<i>Rhinogobius</i>	439	<i>stormi</i> , <i>Cephalocassis</i>	149
<i>stilbe</i> , <i>Zalocys</i>	277	<i>stoutii</i> , <i>Bdellostoma</i>	8
<i>Stilbiscus</i>	89	<i>Polistotrema</i>	8
<i>edwardsi</i>	89	<i>strabo</i> , <i>Icelinus</i>	376
<i>stilbilus</i> , <i>Leuroglossus</i>	68	<i>Ophioscion</i>	347
<i>Nototropis</i>	125	<i>straminea</i> , <i>Hybopsis deliciosa</i>	134
<i>Notropis</i>	125	<i>stramineus</i> , <i>Hybognathus</i>	133
<i>stimpsoni</i> , <i>Triglopsis</i>	389	<i>Hybopsis</i>	134
<i>stipes</i> , <i>Atherina</i>	246	<i>Strephon</i>	159
<i>Hepsetia</i>	246	<i>striata</i> , <i>Alausa</i>	43
<i>Joturus</i>	254, 255	<i>Argentina</i>	68
<i>stirurus</i> , <i>Chloroscombrus</i>	276	<i>Perca</i>	331
<i>Stizostedion</i>	282	<i>striato</i> , <i>Perca marina capite</i>	330
<i>glaucum</i>	282	<i>striatulus</i> , <i>Brycon</i>	98
<i>vitreum</i>	282	<i>Chalcinopsis</i>	98
<i>Stizostethium</i>	282	<i>striatum</i> , <i>Bathystoma</i>	331
<i>Stoasodon</i>	30	<i>Pygidium</i>	159
<i>narinari</i>	30	<i>striatus</i> , <i>Acanthurus</i>	363
<i>Stolephorus</i>	47	<i>Anthias</i>	311, 318
<i>astilbe</i>	49	<i>Blennius</i>	462
<i>branchiomelas</i>	49	<i>Bodianus</i>	325
<i>brevirostrum</i>	50	<i>Centropristes</i>	317
<i>cultratus</i>	48	<i>Chaetodon</i>	359
<i>curtus</i>	48	<i>Ctenochaetus</i>	363
<i>epsetus</i>	47	<i>Diodon maculato</i>	502
<i>eurystole</i>	48	<i>Epinephelus</i>	311, 318
<i>exiguus</i>	47	<i>Holocentrus</i>	235
<i>garmani</i>	51	<i>Hypsoblennius</i>	462
<i>gilberti</i>	51	<i>Labrus</i>	317
<i>guianensis</i>	49	<i>Luciocharax</i>	100
<i>hiuleus</i>	48	<i>Monacanthus</i>	494
<i>ischamus</i>	48	<i>Roccus</i>	307
<i>lucidus</i>	48	<i>Salmo</i>	54
<i>lyolepis</i>	49	<i>strigata</i> , <i>Trigla</i>	407
<i>miarchus</i>	47	<i>strigatum</i> , <i>Sparisoma</i>	433
<i>mundeolus</i>	50	<i>strigatus</i> , <i>Atennarius</i>	505
<i>naso</i>	49	<i>Euctenogobius</i>	441
<i>opercularis</i>	51	<i>Gobionellus</i>	441
<i>per fasciatus</i>	47	<i>Holacanthus</i>	361
<i>pertheatus</i>	47	<i>Prionotus</i>	407
<i>rastralis</i>	50	<i>Scarus</i>	433
<i>robertsi</i>	49	<i>Xiphophorus</i>	193
<i>rostralis</i>	47	<i>helleri</i>	193
<i>scofieldi</i>	49	<i>strigilata</i> , <i>Loricaria</i>	162
<i>spinifer</i>	47	<i>strigosus</i> , <i>Acanthurus</i>	363
<i>starksi</i>	48	<i>Anarchichas</i>	472
<i>surinamensis</i>	50	<i>ströemii</i> , <i>Zeus</i>	217
<i>stolifera</i> , <i>Clupea</i>	44	<i>Stromateidæ</i>	266
<i>Dussumieria</i>	45, 46	<i>Stromateiformes</i>	266
<i>Jenkinsia</i>	46	<i>Stromateus cryptosus</i>	267
<i>Lile</i>	44	<i>longipinnis</i>	266
<i>stolzmanni</i> , <i>Belone</i>	196	<i>medius</i>	267
<i>Eriseion</i>	356	<i>palometa</i>	266, 267
<i>Otolithus</i>	356	<i>paru</i>	266
<i>Strongylura</i>	196	<i>triacanthus</i>	267
<i>stomata</i> , <i>Hippoglossina</i>	223	<i>strombi</i> , <i>Apogonichthys</i>	296
<i>Stomias</i>	69	<i>Strongylura</i>	195
<i>affinis</i>	69	<i>angusticeps</i>	196
<i>atriventer</i>	69	<i>argalus</i>	196
<i>colubrinus</i>	69	<i>caudimaculata</i>	195
<i>ferox</i>	69	<i>diplotænia</i>	196
<i>hexagonatus</i>	69	<i>euryps</i>	196

List of scientific names—Continued

	Page		Page
<i>Strongylura exilis</i>	196	<i>superbus</i> , <i>Scarus</i>	434
<i>guianensis</i>	196	<i>superciliatus</i> , <i>Hexagrammos</i>	374
<i>marina</i>	196	<i>Hyborhynchus</i>	145
<i>microps</i>	196	<i>Labrax</i>	373
<i>notata</i>	195	<i>supernas</i> , <i>Leucichthys</i>	63
<i>pterura</i>	196	<i>surinamensis</i> , <i>Anisotremus</i>	332
<i>scapularis</i>	195	<i>Batrachoides</i>	486
<i>stolzmanni</i>	196	<i>Batrachus</i>	486
<i>timucu</i>	195	<i>Galeichthys</i>	150
<i>strongylura</i> , <i>Belone</i>	195	<i>Hexanematichthys</i>	150
<i>strumosis</i> , <i>Gobieso</i>	489	<i>Holocentrus</i>	323
<i>Sturio</i>	33, 34	<i>Lobotes</i>	323
<i>vulgaris</i>	33	<i>Lutjanus</i>	332
<i>sturio</i> , <i>Acipenser</i>	33, 34	<i>Pleuronectes</i>	217
<i>Sturisma</i>	161	<i>Pœcilia</i>	190
<i>rostrata</i>	161	<i>Sparus</i>	424
<i>Styicola</i>	479	<i>Stolephorus</i>	50
<i>dentatus</i>	479	<i>susanae</i> , <i>Boleosoma</i>	288
<i>Stygogenes</i>	159	<i>suspectus</i> , <i>Phycocetes</i>	478
<i>humboldti</i>	159	<i>sutor</i> , <i>Blepharis</i>	274
<i>Stylophorida</i>	216	<i>swaini</i> , <i>Pœciliichthys</i>	291
<i>Stylophorus</i>	216	<i>Swainia</i>	285
<i>chorulatus</i>	216	<i>squamata</i>	285
<i>Styletor</i>	86	<i>swampina</i> , <i>Hydrargyra</i>	175
<i>stylifer</i> , <i>Hippocampus</i>	244	<i>swanii</i> , <i>Bothragonus</i>	396
<i>Stylophthalmeide</i>	71	<i>Hypsagonus</i>	396
<i>Stylophthalmus</i>	71	<i>swannanoa</i> , <i>Etheostoma</i>	289
<i>paradoxus</i>	71	<i>Nanostoma</i>	289
<i>Stypodon</i>	113	<i>swifti</i> , <i>Eosebastes</i>	367
<i>signifer</i>	113	<i>Sebastodes</i>	367
<i>suavis</i> , <i>Cyprinella</i>	131	<i>Syacium</i>	218
<i>subæqualis</i> , <i>Corvina</i>	345	<i>latifrons</i>	218
<i>Vacuqua</i>	345	<i>mercurium</i>	218
<i>subarenata</i> , <i>Zygonia</i>	18	<i>ovale</i>	218
<i>subarcuatum</i> , <i>Hæmulon</i>	330	<i>papillosum</i>	218
<i>subarmatus</i> , <i>Acanthurus</i>	362	<i>Symbranchia</i>	76
<i>subbifrenatus</i> , <i>Rhypticus</i>	316	<i>Symbranchus</i>	76
<i>subbifrenatus</i> , <i>Ulvaria</i>	470	<i>symmetricus</i> , <i>Apomotis</i>	299
<i>subbifrenatus</i> , <i>Pholis</i>	470	<i>Caranx</i>	270
<i>subcærulea</i> , <i>Amia</i>	38	<i>Hesperoleucus</i>	121
<i>subditus</i> , <i>Hesperoleucus</i>	122	<i>Lepomis</i>	299
<i>subfrenus</i> , <i>Labrus</i>	424	<i>Pezomachus</i>	121
<i>subfurcatus</i> , <i>Bermudichthys</i>	430	<i>Salmo</i>	59
<i>subligarius</i> , <i>Centropristis</i>	220	<i>Trachurus</i>	270
<i>subniger</i> , <i>Chiasmodon</i>	452	<i>Symmetrurus</i>	116
<i>suborbitalis</i> , <i>Holocentrum</i>	236	<i>Symbanchus vittatus</i>	76
<i>suborbitalis</i> , <i>Adioryx</i>	236	<i>Symphurus</i>	330
<i>Macrurus</i>	203	<i>atramentatus</i>	231
<i>Nematonurus</i>	203	<i>atricaudus</i>	231
<i>Plectromus</i>	233	<i>diomedianus</i>	231
<i>subossens</i> , <i>Nannocampus</i>	244	<i>elongatus</i>	231
<i>subterranea</i> , <i>Lucifuga</i>	479	<i>fasciolaris</i>	231
<i>subterraneus</i> , <i>Lucifuga</i>	479	<i>leel</i>	231
<i>Typhlichthys</i>	194, 195	<i>marginatus</i>	231
<i>subtruncata</i> , <i>Belone</i>	195	<i>negrescens</i>	230
<i>subtruncatus</i> , <i>Homoprion</i>	345	<i>piger</i>	230
<i>subulatus</i> , <i>Oreynus</i>	260	<i>plagiata</i>	231
<i>Thunnus</i>	260	<i>plagiata</i>	231
<i>succinata</i> , <i>Senola</i>	278	<i>pusillus</i>	231
<i>succetta</i> , <i>Cyprinus</i>	109	<i>williamsi</i>	231
<i>Erimyzon</i>	109	<i>synagris</i> , <i>Lutjanus</i>	313, 327
<i>stekleyi</i> , <i>Spinax</i> (<i>Acanthias</i>).....	21	<i>synagrus</i> , <i>Sparus</i>	327
<i>squidus</i>	21	<i>Synanceia cervus</i>	381
<i>sucklii</i> , <i>Catostomus</i>	105	<i>Synanceia cervus</i>	381
<i>succubti</i> , <i>Rivulus chucunagu</i>	180	<i>Synaphobranchide</i>	78
<i>Sudida</i>	165	<i>Synaphobranchus</i>	78
<i>Sudis</i>	165	<i>bathybius</i>	78
<i>hyalina</i>	165	<i>kaupii</i>	78
<i>intermedius</i>	165	<i>pinnatus</i>	78
<i>ringens</i>	165	<i>Synapteretmus</i>	166
<i>suensonii</i> , <i>Chilorhinus</i>	83	<i>Synbranchide</i>	76
<i>suerii</i> , <i>Coryphæna</i>	264	<i>Synbranchus</i>	76
<i>suessii</i> , <i>Meletta</i>	42	<i>fuliginosus</i>	76
<i>sufflamen</i>	492	<i>immaculatus</i>	76
<i>verres</i>	492	<i>marmoratus</i>	76
<i>sufflamen</i> , <i>Balistes</i>	492	<i>transversalis</i>	76
<i>Canthidontes</i>	492	<i>Synchiridae</i>	393
<i>sugillatus</i> , <i>Ophisurus</i>	58	<i>Synchirus</i>	393
<i>Suillus</i>	425	<i>gilli</i>	393
<i>suillus</i> , <i>Laenolaimus</i>	425	<i>Synechoglanis</i>	151
<i>sujef</i> , <i>Muraenoides</i>	467	<i>beardii</i>	151, 152
<i>sulcatus</i> , <i>Coryphenoides</i>	207	<i>Syntognathus</i>	195
<i>Herpetichthys</i>	87	<i>Syngnathidae</i>	240
<i>Trachonurus</i>	207	<i>Syngnathinae</i>	240
<i>sumichrasti</i> , <i>Citharichthys</i>	219	<i>Syngnathus</i>	240
<i>sundiacus</i> , <i>Bagrus</i>	149	<i>abbotti</i>	240

List of scientific names—Continued

	Page		Page
<i>Syngnathus acus</i>	240	<i>tabacarius</i> , <i>Centropriotes</i>	319
<i>æquoreus</i>	243	<i>tacheté</i> , <i>le Diodon</i>	501
<i>affinis</i>	242	<i>tænia</i> , <i>Bassozetus</i>	481
<i>arctus</i>	242	<i>Bathyonus</i>	481
<i>arundinaceus</i>	240	<i>Blennius</i>	468
<i>ascendens</i>	241	<i>Clinostomus</i>	119
<i>auliscus</i>	240	<i>tæmata</i> , <i>Atherina</i>	246
<i>bairdianus</i>	242	<i>tæniatum</i> , <i>Hæmulon</i>	332
<i>brachycephalus</i>	241	<i>tæniatus</i> , <i>Anisotremus</i>	332
<i>barbære</i>	240	<i>Chirocentron</i>	45
<i>brachycephalus</i>	241	<i>Evoxymetopon</i>	262
<i>bervicaudus</i>	241	<i>Pseudoxiphophorus bimaculatus</i>	188
<i>brevirostris</i>	240	<i>Tropidichthys</i>	500
<i>californiensis</i>	240	<i>Tænioconger</i>	82
<i>carinatus</i>	240	<i>digueti</i>	82
<i>crinigerum</i>	241	<i>tæniops</i> , <i>Cephalopholis</i>	309
<i>dekayi</i>	242	<i>Serranus</i>	309
<i>dendriticus</i>	242	<i>tæniopterus</i> , <i>Balistes</i>	491
<i>dimidiatus</i>	240	<i>Cottus</i>	388
<i>elcapitanense</i>	242	<i>Perissias</i>	220
<i>elcapitensis</i>	242	<i>Platophrys</i>	220
<i>elucens</i>	241	<i>Pseudoscarus</i>	433
<i>ethon</i>	241	<i>Scarus</i>	433
<i>fasciatus</i>	242	<i>Tæniomembras</i>	246
<i>fistulatus</i>	241	<i>Tæniophis</i>	91
<i>flavirostris</i>	241	<i>westphali</i>	91
<i>floridæ</i>	241	<i>Tæniosomi</i>	216
<i>fuscus</i>	242	<i>Tæniotoca</i>	411
<i>griseolineatus</i>	240	<i>lateralis</i>	411
<i>hippocampus</i>	244	<i>tæniura</i> , <i>Safale</i>	305
<i>jonesi</i>	241	<i>tæniurus</i> , <i>Dules</i>	305
<i>leptorhynchus</i>	240	<i>Labrus</i>	430
<i>linea</i>	241	<i>Pœcilurichthys</i>	97
<i>louisianæ</i>	242	<i>Tachisurus gulosus</i>	151
<i>mackayi</i>	241	<i>jordani</i>	150
<i>marmoreus</i>	241	<i>lentiginosus</i>	149
<i>milbertianus</i>	242	<i>longicephalus</i>	150
<i>mindii</i>	242	<i>Tachysurus</i>	150
<i>ophidion</i>	243	<i>chinensis</i>	150
<i>peckianus</i>	242	<i>emmelane</i>	151
<i>peckii</i>	242	<i>evermanni</i>	151
<i>pelagicus</i>	210	<i>liropus</i>	151
<i>picturatus</i>	241	<i>steindachneri</i>	151
<i>poeyi</i>	241	<i>tahoensis</i> , <i>Catostomus</i>	107
<i>robertsi</i>	241	<i>Salmo</i>	51
<i>rousseau</i>	241	<i>clarkii</i>	57
<i>sibbaldi</i>	243	<i>talasica</i> , <i>Gobius</i>	442
<i>sinaloæ</i>	241	<i>Talismania</i>	53
<i>spicifer</i>	243	<i>æquatoris</i>	53
<i>starksi</i>	242	<i>antillarum</i>	53
<i>tenuis</i>	241	<i>tang</i> , <i>Mugil</i>	253
<i>torrei</i>	242	<i>tanneri</i> , <i>Hyperchoristus</i>	70
<i>tweediei</i>	242	<i>tapdisma</i> , <i>Salmo</i>	55
<i>viridescens</i>	242	<i>Taractes</i>	265
<i>Synodontidae</i>	163	<i>asper</i>	265
<i>Synodus</i>	163	<i>longipinnis</i>	265
<i>acutus</i>	164	<i>saussurii</i>	265
<i>argenteus</i>	40	<i>Tarandichthys</i>	375
<i>evermanni</i>	164	<i>cavifrons</i>	375
<i>foetens</i>	163, 172	<i>filamentosus</i>	376
<i>intermedius</i>	164	<i>tenuis</i>	376
<i>jenkinsi</i>	163	<i>tarasorum</i> , <i>Algansea</i>	116
<i>lacerta</i>	163	<i>Tarletonbeania</i>	170
<i>lacertinus</i>	164	<i>crenularis</i>	170
<i>lucioceph</i>	163	<i>tenua</i>	170
<i>malabaricus</i>	99	<i>Tarpon</i>	39
<i>poeyi</i>	164	<i>atlanticus</i>	39
<i>sauris</i>	163	<i>Tarpum</i>	39
<i>seftuliceps</i>	164	<i>tarsodes</i> , <i>Bryostemma</i>	466
<i>simulans</i>	163	<i>tassellatum</i> , <i>Boleosoma</i>	287
<i>synodus</i>	163	<i>tassellatus</i> , <i>Labrus</i>	424
<i>synodys</i> , <i>Esox</i>	163	<i>tau</i> , <i>Batrachoides</i>	486
<i>Synodus</i>	163	<i>Gadus</i>	486, 487
<i>Sypterus</i>	240	<i>Opsanus</i>	487
<i>Syrtetes</i>	242	<i>pardus</i> , <i>Batrachus</i>	487
<i>affinis</i>	242	<i>Tauridea</i>	383, 386
<i>bairdianus</i>	242	<i>taurinus</i> , <i>Aspicottus</i>	381
<i>exilis</i>	243	<i>Enophrys</i>	381
<i>fuscus</i>	242	<i>taurocephalus</i> , <i>Alburnops</i>	145
<i>louisianæ</i>	242	<i>taurus</i> , <i>Abudefduf</i>	415
<i>scovelli</i>	242	<i>Carcharias</i>	15
<i>Syrraxis</i>	27	<i>Carpodes</i>	102
<i>Syrrhina</i>	23	<i>Glyphidodon</i>	415
<i>syrtensium</i> , <i>Argentina</i>	68	<i>Tautoga</i>	424
<i>tabacaria</i> , <i>Fistularia</i>	245	<i>alia</i>	424
<i>Prionodes</i>	319	<i>corulea</i>	424
		<i>fusca</i>	424

List of scientific names—Continued

	Page		Page
<i>Tautoga niger</i>	424	<i>testudineus</i> , <i>Arothron</i>	499
<i>nigra</i>	424	<i>Cheilichthys</i>	499
<i>onitis</i>	424	<i>Tetraodon</i>	499
<i>rubens</i>	424	<i>Tetrabanchus</i>	76
<i>tautoga</i> , <i>Labrus</i>	424	<i>tetracantha cincta</i> , <i>Parapetenia</i>	419
<i>Tautogolabrus</i>	424	<i>grisea</i> , <i>Parapetenia</i>	419
<i>adpersus</i>	424	<i>lata</i> , <i>Parapetenia</i>	419
<i>taylori</i> , <i>Arius</i>	151	<i>Parapetenia</i>	419
<i>Asematicthys</i>	390	<i>torralbasi</i> , <i>Parapetenia</i>	419
<i>Ophidium</i>	485	<i>tetracanthus</i> , <i>Centrarchus</i>	419
<i>Otophidium</i>	485	<i>cinctus</i> , <i>Heros</i>	419
<i>teapæ</i> , <i>Cichlasoma</i>	417	<i>griseus</i> , <i>Heros</i>	419
<i>Theraps</i>	417	<i>latus</i> , <i>Heros</i>	419
<i>Tectospondyli</i>	21	<i>Sparus</i>	325
<i>Tekla</i>	456	<i>torralbasi</i> , <i>Heros</i>	419
<i>tekla</i> , <i>Stathmonotus</i>	466	<i>Tetragonopterus</i>	359
<i>Teleostei</i>	39	<i>ænes</i>	96
<i>telescopium</i> , <i>Pomatomus</i>	296	<i>brevimanus</i>	96
<i>Telescopus</i>	296	<i>fischeri</i>	97
<i>telescopus arcansanus</i> , <i>Notropis</i>	124	<i>fulgens</i>	96
<i>telescopus</i> , <i>Notropis</i>	124	<i>(Hemibrycon) polyodon</i>	97
<i>Photogenis</i>	124	<i>humilis</i>	96
<i>Telipomis</i>	298	<i>macrophthalmus</i>	97
<i>Temeculina</i>	119, 120	<i>mexicanus</i>	96
<i>temminckii</i> , <i>Carcharias</i>	15	<i>microphthalmus</i>	96
<i>temminckii</i> , <i>Ruvettus</i>	261	<i>nitidus</i>	96
<i>Temnistia</i>	380	<i>ørstedii</i>	96
<i>Temnodon</i>	280	<i>petenensis</i>	97
<i>templei</i> , <i>Pomadasys</i>	334	<i>seabripinnis</i>	97
<i>tenebrosus</i> , <i>Alepocephalus</i>	52	<i>Tetragonuridae</i>	269
<i>Antennarius</i>	505	<i>Tetragonurus</i>	269
<i>Caranx</i>	273	<i>atlanticus</i>	269
<i>Xurel</i>	273	<i>cuvieri</i>	269
<i>tenellus</i> , <i>Fundulus</i>	177	<i>simplex</i>	261
<i>Hyborhynchus</i>	145	<i>Tetranarce</i>	27
<i>tentabunda</i> , <i>Trigla</i>	409	<i>californica</i>	27
<i>tentaculata</i> , <i>Veneficula</i>	82	<i>occidentalis</i>	27
<i>tenua</i> , <i>Tarletonbeania</i>	170	<i>tetranemus</i> , <i>Extrarius</i>	139
<i>tenuis</i> , <i>Cichlasoma</i>	419	<i>Hybopsis</i>	139
<i>Moxostoma</i>	109	<i>Tetraodon</i>	499
<i>tenuicauda</i> , <i>Macrourus</i>	206	<i>ammocryptus</i>	499
<i>Macrurus</i>	206	<i>hispidus</i>	500
<i>tenuiculum</i> , <i>Myctophum</i>	170	<i>laevigatus</i>	497
<i>tenuifilis</i> , <i>Antennarius</i>	505	<i>lineatus</i>	499
<i>tenuirostris</i> , <i>Anguilla</i>	77	<i>mola</i>	503
<i>tenuis</i> , <i>Anthias</i>	322	<i>perspicillaris</i>	500
<i>Atherinopsis</i>	251	<i>politus</i>	499
<i>Cottus</i>	384	<i>pluviatilis</i>	499
<i>Cynodontichthys</i>	180	<i>reticularis</i>	499
<i>Gadus</i>	213	<i>rostratus</i>	500
<i>Icelinus</i>	376	<i>setosus</i>	500
<i>Leuresthes</i>	251	<i>stellatus</i>	497, 499
<i>Parapetenia</i>	419	<i>testudineus</i>	499
<i>Pocilia</i>	192	<i>trichoccephalus</i>	499
<i>Rivulus</i>	180	<i>Tetraodontidae</i>	497
<i>Syngnathus</i>	241	<i>Tetrapleurodon</i>	9
<i>Tarandichthys</i>	376	<i>spadiceus</i>	9
<i>Uranidea</i>	384	<i>tetrapturum</i> , <i>Echeneis</i>	450
<i>Trophycis</i>	213	<i>Tetrapturus amplus</i>	263
<i>teporatus</i> , <i>Heros</i>	422	<i>indicus</i>	263
<i>teraculeatus</i> , <i>Gasterosteus</i>	237	<i>mazara</i>	263
<i>tereira</i> , <i>Macrondon</i>	99	<i>mitsukurii</i>	263
<i>teres</i> , <i>Alosa</i>	46	<i>tetraspilus</i> , <i>Upeneus</i>	344
<i>Cyprinus</i>	105	<i>Tetrodon angusticeps</i>	498
<i>Macrondon</i>	99	<i>annulatus</i>	499
<i>Sphagebranchus</i>	86	<i>capistratus</i>	500
<i>Teretulus</i>	169	<i>(Cheilichthys) pachygaster</i>	499
<i>cervinus</i>	111	<i>curvus</i>	497
<i>teretulus liosternus</i> , <i>Phenacobius</i>	142	<i>fluviatilis</i>	499
<i>teretulus</i> , <i>Phenacobius</i>	142	<i>formosus</i>	500
<i>tergatus</i> , <i>Hiodon</i>	40	<i>fürthii</i>	499
<i>terræ-novæ</i> , <i>Lycodes</i>	474	<i>geometricus</i>	499
<i>Scollodon</i>	14	<i>heraldi</i>	499
<i>Squalus (Carcharias)</i>	14	<i>hispidus maculatus</i>	498
<i>Triglops</i>	380	<i>implutus</i>	500
<i>ommatistius</i>	380	<i>laevigatus</i>	497
<i>terræ-novæ</i> , <i>Theraps</i>	417	<i>laterna</i>	500
<i>terræ-bensis</i> , <i>Brachyrhaphis</i>	186	<i>le</i>	498
<i>Gambusia</i>	186	<i>lineolatus</i>	497
<i>teschuta</i> , <i>Etheostoma</i>	290	<i>marmoratus</i>	498
<i>Plagiata</i>	231	<i>mathematicus</i>	497
<i>tesellatus</i> , <i>Hiodropterus</i>	280	<i>mola</i>	503
<i>Labrus</i>	424	<i>nepelus</i>	498
<i>Nothonotus</i>	290	<i>ornatus</i>	500
<i>le tar</i> , <i>Lepadogaster</i>	489	<i>oxyrhynchus</i>	500

List of scientific names—Continued

	Page		Page
<i>Tetrodon pachycephalus</i>	497	<i>Thoburnia</i>	107
<i>psittacus</i>	500	<i>rhotheeca</i>	108
<i>punctatissimus</i>	500	<i>Tholichthys</i>	359
<i>punctatus</i>	499	<i>osseus</i>	359
<i>rostratus</i>	500	<i>thompsoni</i> , <i>Amia</i>	38
<i>spengleri</i>	498	<i>Carpiodes</i>	103
(Spheroides) <i>eulepidotus</i>	498	<i>Gnatholepis</i>	443
<i>truncatus</i>	504	<i>Lepidosteus</i>	37
<i>turgidus</i>	498	<i>Trigloporus</i>	389
<i>Tetronarce</i>	27	<i>thomsonii</i> , <i>Cottus</i>	392
<i>tetropthalma</i> , <i>Lioglossina</i>	223	<i>Cottus</i>	392
<i>tetropthalmus</i> , <i>Anableps</i>	194	<i>thoracatus</i> , <i>Callichthys</i> (<i>Holosternum</i>).....	160
<i>Lioglossina</i>	223	<i>Thoracosteus</i>	237
<i>Teuthis</i>	362	<i>thoreauanus</i> , <i>Semotilus</i>	117
<i>australis</i>	362	<i>Semotilus atromaculatus</i>	117
<i>crestonis</i>	363	<i>Thorichthys</i>	422
<i>hepatus</i>	362	<i>acutus</i>	422
<i>texana</i> , <i>Anguilla</i>	77	<i>affinis</i>	422
<i>Cyprinella</i>	130	<i>aureus</i>	422
<i>Erogala</i>	130	<i>callolepis</i>	422
<i>texanus</i> , <i>Catostomus</i>	108	<i>elliotti</i>	422
<i>Xyrauchen</i>	108	<i>helleri</i>	422
<i>texensis</i> , <i>Dionda</i>	144	<i>thrissa</i> , <i>Clupea</i>	44
<i>textilis</i> , <i>Salarias</i>	464	<i>thrissina</i> , <i>Clupea</i>	44
<i>Salarichthys</i>	464	<i>Harengula</i>	44
<i>thalassinum</i> , <i>Moxostoma</i>	110	<i>Thrissonimimus</i>	62
<i>Nanostoma</i>	289	<i>Throndontis</i>	91
<i>thalassinus</i> , <i>Cynoscion</i>	355	<i>reticulata tessellata</i>	91
<i>Doratonotus</i>	429	<i>Thunnidae</i>	259
<i>Gobius</i>	444	<i>thunnina</i> , <i>Thynnus</i>	258
<i>Microgobius</i>	444	<i>Thynnus</i>	259
<i>Myloleucus</i>	122	<i>allisoni</i>	260
<i>Nothonotus</i>	289	<i>coretta</i>	260
<i>Otolithus</i>	355	<i>saliens</i>	259
<i>Ptychostomus</i>	110	<i>secundodorsalis</i>	260
<i>Thalassoma</i>	428	<i>subulatus</i>	260
<i>bifasciatum</i>	429	<i>Thymallidae</i>	66
<i>grammaticum</i>	429	<i>thymalloides</i> , <i>Coregonus</i>	66
<i>lucasanum</i>	429	<i>Thymallus</i>	66
<i>nitidum</i>	429	<i>montanus</i>	66
<i>socorroense</i>	429	<i>ontariensis</i>	66
<i>socorroensis</i>	429	<i>signifer</i>	66
<i>steindachneri</i>	429	<i>tricolor</i>	66
<i>virens</i>	429	<i>thymallus</i> , <i>Salmo</i>	66
<i>Thalassophryne</i>	488	<i>Thynnus</i>	259
<i>dowi</i>	488	<i>affinis</i>	258
<i>maculosa</i>	488	<i>atlanticus</i>	260
<i>reticulata</i>	488	<i>balteatus</i>	260
<i>Thaleichthys</i>	66	<i>brasiliensis</i>	258
<i>albatorossis</i>	67	<i>brevipinnis</i>	258
<i>pacificus</i>	66	<i>coretta</i>	260
<i>stevensi</i>	66	<i>leachianus</i>	258
<i>thaleichthys</i> , <i>Osmerus</i>	67	<i>pacificus</i>	260
<i>Spirinchus</i>	67	<i>pompilus</i>	278
<i>thaumasma</i> , <i>Rhagnum</i>	322	<i>thunnina</i>	258
<i>Thecopterus</i>	392	<i>vagrans</i>	258
<i>aleuticus</i>	392	<i>thynnus</i> , <i>Scomber</i>	259
<i>Theragra</i>	209	<i>Thyrsoidea concolor</i>	93
<i>chalcogramma</i>	209	<i>Thyrina</i>	248
<i>fucensis</i>	209	<i>balsana</i>	249
<i>Theraps</i>	417	<i>chagresi</i>	249
<i>balteatus</i>	418	<i>crystallina</i>	248
<i>eigenmanni</i>	417	<i>evermanni</i>	248
<i>frontalis</i>	417	<i>guatemalensis</i>	249
<i>gadovii</i>	417	<i>guja</i>	248
<i>gibiceps</i>	417	<i>meeki</i>	249
<i>irregularis</i>	417	<i>sardina</i>	249
<i>lenticinosus</i>	417	<i>Thyrinops</i>	249
<i>milleri</i>	417	<i>pachylepis</i>	249
<i>mojarra</i>	417	<i>Thyris</i>	220
<i>nebulifer</i>	417	<i>pellucidus</i>	220
<i>nicaraguensis</i>	417	<i>Thyriscus</i>	379
<i>nigritus</i>	417	<i>anoplus</i>	379
<i>teape</i>	417	<i>Thyrsoidea maculipinnis</i>	92
<i>terrace</i>	417	<i>thyrsitoides</i> , <i>Lernaeonia</i>	261
<i>zonatus</i>	417	<i>Thyrsoidea concolor</i>	92, 93
<i>thermalis</i> , <i>Poecilia</i>	192	<i>militaris</i>	92
<i>thermophilus</i> , <i>Richardsonius</i>	118	<i>Thyrsites acanthoderma</i>	261
<i>Therobromus</i>	68	<i>niger</i>	261
<i>callorhini</i>	68	<i>scholaris</i>	261
<i>theta</i> , <i>Diaphus</i>	168	<i>Thyristops violaceus</i>	260
<i>thoburni</i> , <i>Alcidea</i>	375	<i>Thysanocara</i>	160
<i>Mugil</i>	253	<i>spinosa</i>	160
<i>Paricelinus</i>	375	<i>Tiaroga</i>	143
<i>Quirimana</i>	253	<i>cobitis</i>	143

List of scientific names—Continued

	Page		Page
tiburo, Reniceps.....	17	torsk, Gadus.....	214
Squalus.....	17	tortuga, Ctenogobius.....	439
Zygæna.....	17	Holocentrus.....	236
Tiburon.....	17	Rhinogobius.....	439
Tigoma.....	119	torvus, Cottunculus.....	392
atraria.....	119	Monomitopus.....	480
bicolor.....	120	tota, Perca.....	310
crassa.....	120	toweri, Goodea.....	184
egregia.....	118	townsendi, Angelichthys.....	361
gibbosa.....	119	Gobius.....	444
gracilis.....	119	Myctophum.....	167
humboldtii.....	119	Nyctimaster.....	167
intermedia.....	119	toxotes, Rhachochilus.....	411
lineata.....	119	Toxus.....	188
nigrescens.....	120	cubensis.....	188
orcutti.....	120	riddlei.....	188
pulchella.....	120	Trachocorystes.....	159
pulchra.....	120	amblops.....	159
pulverentula.....	120	typus.....	159
purpurea.....	119	Trachichthyidae.....	234
squamata.....	119	Trachichthys pretiosus.....	234
rhinichthyoides.....	141	Trachidermis richardsoni.....	383
tigrina, Ichthyophis.....	94	Trachinocephalus.....	163
tigrinus, Galeocerdo.....	14	myops.....	163
Holocentrus.....	319	Trachinotus.....	276
Myrichthys.....	85	argenteus.....	277
Prionodes.....	319	bailloni.....	276
tigris, Antennarius.....	506	carolinus.....	277
Carcharias.....	19	culveri.....	277
Chironectes.....	506	cupreus.....	277
Isurus.....	19	falcatus.....	276
Mycteroperca.....	315	fuscus.....	276
Serranus.....	315	goodei.....	277
tilelli, Hemilepidotus.....	381	kennedyi.....	277
timagamiensis, Salvelinus.....	60	paloma.....	277
timlei, Raia.....	27	palometa.....	276
timpanogenesis, Ilybopsis.....	119	pampanus.....	276, 277
Tinnuc.....	195, 199	rhodopus.....	276
tinucu, Belone.....	195	spinosus.....	276
Esox.....	195	Trachinus adscensionis.....	310
Strongylura.....	195	cirrhus.....	382
tinca, Serranus.....	315	gasteropetecus.....	357
tincella, Algansea.....	115	osbecki.....	310
Leuciscus.....	115	punctatus.....	310
tippecanoe, Etheostoma.....	292	trichodon.....	357
Nivicola.....	292	Trachipteridae.....	216
Tirus.....	163	Trachipterus.....	216
marmoratus.....	163	arcticus.....	216
tlahuacensis, Evarra.....	142	tex-salmonorum.....	216
Toichthys.....	410	trachyurus.....	216
agassizii.....	410	Trachonurus.....	207
toe-roe, Otolithus.....	354	sulcatus.....	207
toma, Salmo.....	59	trachura, Gasterosteus.....	237
tomcod, Gadus.....	210	Raja.....	26
Microgadus.....	210	Trachurops.....	270
tomcodus fuscus, Gadus.....	210	brachychira.....	271
luteus, Gadus.....	210	brachychirus.....	271
mixtus, Gadus.....	210	crumenophthalmia.....	271
pruinosis, Gadus.....	210	Trachurus.....	270
Tomocodon.....	490	aliciolus.....	279
Tomocichla.....	423	boops.....	272
geddesi.....	423	europæus.....	270
underwoodi.....	423	fasciatus.....	279
toræka, Crotoma.....	143	japonicus.....	270
Notropis.....	143	lathamii.....	270
linnei.....	270	linnei.....	270
Torjedinidae.....	27	squamosis.....	272
torpedinus, Trygonobatus.....	29	symmetricus.....	270
Torpedo.....	27	trachurus.....	270
bancrofti.....	27	trachurus, Cottus.....	381
brasilienis.....	27	japonicus, Caranx.....	270
californica.....	27	Scomber.....	270
nobiliana.....	27	Trachurus.....	270
occidentalis.....	27	Trachynotus fasciatus.....	276
pictus.....	27	glacioides.....	276
torquatus, Labrus bifasciatus.....	129	nasutus.....	276
torralbasi, Glaridichthys.....	188	rhodopus.....	276
Heros tetracanthus.....	419	trachypoma, Myripristis.....	234
Parapetenia tetracantha.....	419	trachypomus, Ostichthys.....	234
torrei, Dasyatis.....	28	Trachypterus.....	216
Pastinachus.....	28	bogmarus.....	216
Siphostoma.....	242	rex-salmonorum.....	216
Syngnathus.....	242	seleniris.....	216
Torrentaria.....	293	vogmarus.....	216
fasciata.....	293	Trachyrhynchus.....	293
nitida.....	293	helolepis.....	293
torridus, Lutjanus.....	326		

List of scientific names—Continued

	Page		Page
trachyrincus, <i>Lepidolepsus</i>	203	tridentatus, <i>Entosphenus</i>	10
trachyrurus, <i>Trachipterus</i>	216	<i>Petromyzon</i>	10
tractus, <i>Acanthurus</i>	363	tridentiger, <i>Allogambusia</i>	188
trahira, <i>Erythrurus</i>	99	<i>Gambusia</i>	188
<i>Macrodon</i>	99	tridigitatus, <i>Dactyloscopus</i>	454
tranquebar, <i>Aspidophoroides</i>	397	<i>Trifarcus</i>	180
transluens, <i>Gobius</i>	440	<i>felicianus</i>	181
transmonta, <i>Columbia</i>	215	<i>riverendi</i>	181
transmontanus <i>Asipenser</i>	34	trifasciata, <i>Hydrargyra</i>	176
<i>Rhinichthys</i>	139	<i>Lepomis</i>	298
transversalis, <i>Synbranchus</i>	76	trifurca, <i>Perca</i>	318
transversum, <i>Pocillosoma</i>	291	<i>Trigla carolina</i>	407, 408
traski, <i>Hysteroecarpus</i>	412	<i>evolans</i>	407
Trematopsis.....	503	<i>fasciata</i>	409
<i>willughbei</i>	503	<i>palmipes</i>	407
<i>willughbei</i>	503	<i>strigata</i>	407
tremebundus, <i>Elassodiscus</i>	402	<i>tentabunda</i>	409
Triacanthidæ.....	491	<i>volitans</i>	408, 409
triacanthus, <i>Argyriosus</i>	275	Triglidae.....	406
<i>Naucleus</i>	278	Triglops.....	379
<i>Poronotus</i>	267	<i>beani</i>	380
<i>Stromateus</i>	267	<i>metopias</i>	380
<i>Xeneretmus</i>	396	<i>ommatistius</i>	379
<i>Xenochirus</i>	396	<i>terra-novæ</i>	380
Triacis.....	14	<i>pingeli</i>	379
triacis, <i>Orthonopias</i>	391, 392	<i>pleurostictus</i>	379
Triacodon.....	14	<i>scepticus</i>	380
<i>obesus</i>	14	<i>terra-novæ</i>	380
triagramma, <i>Heros</i>	418	<i>xenostethus</i>	380
Triakis.....	14	Triglopsis.....	389
<i>scyllium</i>	14	<i>ontariensis</i>	389
<i>semifasciatum</i>	14	<i>stimpsoni</i>	389
triangularis, <i>Balistes</i>	492	Triglopsis thompsoni.....	389
triangulum, <i>Chaetodon</i>	359	Trigonobatus.....	28
<i>Lutjanus</i>	348	<i>vulgarus</i>	28
Tribranchus.....	77	Trigonophallus.....	187
tribulus, <i>Prionotus</i>	408	<i>punctifer</i>	187
Trichidion.....	256	Trigonorhinus alveata.....	24
<i>octofilis</i>	256	trigonus, <i>Lactophrys</i>	497
<i>opercularis</i>	256	<i>Ostracion</i>	497
trichipterus, <i>Pteraclis</i>	266	trigrammus, <i>Chirus</i>	374
Trichiuridæ.....	262	trilineatum, <i>Pristipoma</i>	332
Trichiurus.....	262	trilobatus, <i>Lutjanus</i>	317
<i>argenteus</i>	262	<i>Searus</i>	434
<i>lepturus</i>	262	Triloburus.....	318
<i>nitens</i>	262	<i>philadelphicus</i>	318
trichocephalus, <i>Cheilichthys</i>	499	trilobus, <i>Blepsias</i>	382
<i>Tetraodon</i>	499	trimaculata, <i>Parapetenia</i>	420
Trichocyclus.....	501	trimaculatum, <i>Heros</i>	420
<i>erinaceus</i>	501	Trinectes.....	229
Trichoderma.....	494	<i>scabra</i>	229
Trichodiodon.....	501	trinitatis, <i>Anchovia</i>	50
<i>pilosus</i>	501	<i>Anchoviella</i>	50
Trichodon.....	357	tristegus, <i>Acanthurus</i>	362
<i>japonicus</i>	357	<i>Chaetodon</i>	362
<i>lineatus</i>	357	triourus, <i>Rodianus</i>	323
<i>trichodon</i>	357	tripes, <i>Nealotus</i>	261
trichodon, <i>Mugil</i>	254	Tripteronotus.....	64
<i>Querimana</i>	254	<i>hautin</i>	64
<i>Trachinus</i>	357	Tripterygium carminale.....	458
<i>Trichodon</i>	357	tripterygius, <i>Cottus</i>	393
Trichodontidæ.....	357	tripunctulatus, <i>Maurolicus</i>	73
Trichonotus.....	39	<i>Valenciennellus</i>	73
Trichopsetta.....	220	triqueter, <i>Ostracion</i>	496
<i>ventralis</i>	220	<i>Rhinesomus</i>	496
trichroistia, <i>Codoma</i>	130	triserialis, <i>Murenophis</i>	88
<i>Erogala</i>	130	<i>Opichthus</i>	88
trichurus, <i>Macrourus</i>	206	triseriata, <i>Platyrrhina</i>	24
<i>Macrurus</i>	206	triseriatus, <i>Platyrrhinoidis</i>	24
tricolor, <i>Chaetodon</i>	361	trisignatum, <i>Moxostoma</i>	105
<i>Engraulis</i>	48	Trisotropis.....	313
<i>Holacanthus</i>	361	<i>aguaji</i>	314
<i>Thymallus</i>	66	<i>bonaci</i>	314
Triacopterus.....	273	<i>boulengeri</i>	313
tricornis, <i>Ostracion</i>	497	<i>chlorostomus</i>	314
tricuspidatus, <i>Hyporhamphus</i>	198	<i>dimidiatus</i>	314
tricuspis, <i>Cottus</i>	389	<i>interstitialis</i>	314
<i>Gymnocanthus</i>	389	<i>jordani</i>	314
tridecemlineatus, <i>Esox</i>	173	<i>microlepis</i>	314
tridecemspinoso, <i>Metzelaaria</i>	370	<i>reticulatus</i>	315
tridecimspinoso, <i>Scorpaena</i>	370	<i>stomias</i>	314
tridens, <i>Lutjanus</i>	318	<i>venenosus</i>	313
<i>Pocilia</i>	190	<i>apua</i>	313
(<i>Acropocilia</i>).....	190	<i>xanthostictus</i>	314
<i>Salema</i>	338	<i>xenarchus</i>	314
<i>Sargus</i>	338	trispinosa, <i>Corvina</i>	346

List of scientific names—Continued

	Page		Page
<i>trispinosus</i> , <i>Odontopyxis</i>	396	<i>turgidus</i> , <i>Tetrodon</i>	498
<i>Scarus</i>	434	<i>turneri</i> , <i>Lycoches</i>	476
<i>tristis</i> , <i>Moniana</i>	132	<i>turrubarensis</i> , <i>Gambusia</i>	189
<i>tristechus</i> , <i>Atractosteus</i>	38	<i>Poeciliopsis</i>	189
<i>Esox</i>	38	<i>tuscumbia</i> , <i>Etheostoma</i>	293
<i>trivittatus</i> , <i>Grammistes</i>	331	<i>Psychromaster</i>	293
<i>Troglichthys</i>	195	<i>tuyrensis</i> , <i>Astatheros</i>	421
<i>rose</i>	195	<i>Cichlasoma</i>	421
<i>Troglolanius</i>	155	<i>Loricaria</i>	162
<i>pattersoni</i>	155	<i>tweedlei</i> , <i>Syngnathus</i>	242
<i>Trompa</i>	434	<i>Tylosurus</i>	196
<i>troosti</i> , <i>Lepidosteus</i>	37	<i>acus</i>	197
<i>tropica</i> , <i>Ebeneis</i>	449	<i>cantrainii</i>	197
<i>tropicus</i> , <i>Atractosteus</i>	38	<i>caribbaeus</i>	197
<i>Phtheichthys</i>	449	<i>euryops</i>	196
<i>Platycephalus</i>	192	<i>fodiator</i>	196
<i>Tropidichthys</i>	500	<i>galeatus</i>	197
<i>taniatus</i>	500	<i>gladius</i>	196
<i>Tropidinius</i>	328	<i>gulanensis</i>	196
<i>dentatus</i>	328	<i>pacificus</i>	197
<i>Tropidodus</i>	10	<i>pterurus</i>	196
<i>troscheli</i> , <i>Herichthys</i>	423	<i>raphidoma</i>	196
<i>Heros</i>	423	<i>sagitta</i>	195
<i>Sciades</i>	148	<i>seapularis</i>	195
<i>Sciadeichthys</i>	148	<i>sierrita</i>	196
<i>troscheli</i> , <i>Abudefduf</i>	415	<i>Tympanomium</i>	503
<i>Glyphidodon</i>	415	<i>planei</i>	503
<i>troubridgei</i> , <i>Holoeonotus</i>	409	<i>Tyntastes</i>	448
<i>troubridgii</i> , <i>Homalopomus</i>	214	<i>brevis</i>	448
<i>truculentus</i> , <i>Chlorophthalmus</i>	165	<i>sagitta</i>	448
<i>truncata</i> , <i>Belone</i>	196	<i>Typhlichthys</i>	194
<i>Mathema</i>	507	<i>osborni</i>	195
<i>Ranzania</i>	504	<i>subterraneus</i>	195
<i>truncatus</i> , <i>Blennius</i>	461	<i>wyandotte</i>	195
<i>Dinectus</i>	35	<i>Typhlogobius</i>	447
<i>Salmo</i>	58	<i>californiensis</i>	447
<i>Saurus</i>	163	<i>Typhlosaras</i>	508
<i>Scarus</i>	433	<i>shufeldti</i>	508
<i>Tetrodon</i>	504	<i>typicus</i> , <i>Ophioscion</i>	347
<i>Trutta</i>	55, 56	<i>Plargyrus</i>	128
<i>trutta</i> , <i>Salmo</i>	55	<i>Rhineodon</i>	18
<i>Truttie</i>	55	<i>typhus</i> , <i>Achirophichthys</i>	89
<i>corpore variegato</i>	55	<i>Carangichthys</i>	273
<i>Trycharodon</i>	115	<i>tyrannus</i> , <i>Anguilla</i>	77
<i>megaloys</i>	115	<i>brevicaudata</i> , <i>Brevoortia</i>	44
<i>Trygon</i>	28	<i>Brevoortia</i>	44
<i>gymnura</i>	28	<i>Clupea</i>	44
<i>longa</i>	28	<i>uhleri</i> , <i>Citharichthys</i>	219
<i>osteosticta</i>	29	<i>Ulema</i>	341
<i>sabina</i>	29	<i>lefroyi</i>	341
<i>sinensis</i>	28	<i>meeki</i>	341
<i>Trygonobatus torpedinus</i>	29	<i>producta</i>	341
<i>tsehawyttscha</i> , <i>Oncorhynchus</i>	55	<i>Ulca</i>	393
<i>Salmo</i>	55	<i>marmorata</i>	393
<i>tsehawyttschiformis</i> , <i>Salmo</i>	54	<i>Uleina</i>	397
<i>tsehudii</i> , <i>Discopyge</i>	27	<i>guntheri</i>	397
<i>tsileosensis</i> , <i>Catostomus</i>	106	<i>olriki</i>	397
<i>tsuppitch</i> , <i>Fario</i>	57	<i>Ulocentra</i>	286
<i>Salmo</i>	55	<i>blennius</i>	287
<i>tuberculata</i> , <i>Raja</i>	28	<i>gilberti</i>	286
<i>tuberculatus</i> , <i>Catostomus</i>	109	<i>histrio</i>	286
<i>Phaenichthys</i>	264	<i>meadia</i>	286
<i>Sphaeroides</i>	498	<i>phlox</i>	287
<i>tubercule</i> , le <i>Sphéroide</i>	498	<i>simotera</i>	286
<i>tuberculée</i> , le <i>Sphéroide</i>	498	<i>stigmaea</i>	287
<i>tubularis</i> , <i>Eleotras</i>	437	<i>verecunda</i>	287
<i>tuckeri</i> , <i>Monacanthus</i>	495	(<i>Ulocentra</i>) <i>histrio</i> , <i>Etheostoma</i>	286
<i>tudes</i> , <i>Gobiesox</i>	489	<i>ulochir</i> , <i>Paraliparis</i>	405
<i>Platyqualus</i>	18	<i>ulvae</i> , <i>Xiphistes</i>	469
<i>Salmo</i>	61	<i>Ulvaria</i>	470
<i>Zygena</i>	17, 18	<i>subbifurcata</i>	470
<i>tuditatus</i> , <i>Hybopsis</i>	145	<i>Ulvicola</i>	467
<i>tullibee</i> , <i>Argyrosomus</i>	61	<i>sanctae rosae</i>	467
<i>Coregonus</i>	61	<i>umatilla</i> , <i>Agosia</i>	141
<i>Leucichthys</i>	61	<i>Agosiope</i>	141
<i>Salmo</i> (<i>Coregonus</i>).....	64	<i>Umbra</i>	60
<i>tumidus</i> , <i>Carpiodes</i>	103	<i>delicatissima</i>	172
<i>Chromocetes</i>	504	<i>limi</i>	174
<i>Lophus</i>	504	<i>minor</i>	255
<i>tumifrons</i> , <i>Sternopygus</i>	101	<i>pygmaea</i>	174
<i>tunicata</i> , <i>Liparis</i>	400	<i>bilineata</i>	174
<i>tunicatus</i> , <i>Careliparis</i>	400	<i>umbratilis</i> , <i>Alburnus</i>	125
<i>turcesius</i> , <i>Scarus</i>	435	<i>Gambusia</i>	190
<i>Turda cinereus peltatus</i>	341	<i>Lythurus</i>	125
<i>Bavus</i>	425	<i>Xenophallus</i>	190
<i>caulo-radiato</i>	426	<i>Umbra</i>	174
<i>pinnis branchialibus cuneis</i>	325		

List of scientific names—Continued

	Page		Page
umbrifer, Cichlaurus	417	unicolor Reighardina	3
Notropis	131	Soleotulpa	230
Urobatis	30	vitulinus, Hypoplectrus	321
Urolophus	30	unicornis, Citharichthys	219
umbriferum, Cichlasoma	417	Unicornis piscis bahamensis	495
Umbrina	350	unicornu, Balistes	496
analis	350	unifasciatus, Hemirhamphus	198
arenata	351	Hyporhamphus	198
broussonnetii	350	unilineatus, Hemigrammus	98
coroides	350	Pocilurichthys	98
dorsalis	350	unimaculata, Perca	338
elongata	351	unimaculatus, Argyreiosus	275
furnieri	349	Clinus	470
gracilicirrus	350	Gymnelis viridis	477
gracilis	351	uninotatus, Ctenolabrus	424
januaria	351	Girardinus	188
littoralis	351	Glaridichthys	188
martinicensis	351	Mesoprius	327
nanus	351	unionensis, Centropomus	306
panamensis	351	universitatis, Notropis	124
phalæna	350	univittatus, Apodichthys	467
roncador	350	Upeneus	343
sinaloa	350	balteatus	343
undulata	350	dentatus	343
xanti	350	flavovittatus	343
umbrosa, Cyprinella	130	grandisquamis	344
Narcine	27	maculatus	343
umbrosus, Eques acuminatus	353	martinicus	343
Esox	173	parvus	343
Gymnothorax	90	punctatus	343
Pareques	353	rathbuni	344
Platichthys	226	tetraspilus	344
Psettichthys	226	xanthogrammus	343
Sebastichthys	367	uracanthia, Loricaria	162
Sebastomus	367	Uraletus	211
Umbrula	351	Uranichthys	87
elongata	351	brachycephalus	87
littoralis	351	Uranidea	383
umpque, Ptychocheilus	114	greeniei	384
Unbarana	39	hoii	385
uncinialis, Leleus	379	kumlieni	385
uncinatus, Artediellus	377	marginata	384
Cottus	377	microstoma	385
uncomphagre, Xyrauchen	108	pollicaris	386
undecimale, Hæmulon	330	quiescens	385
undecimalis, Centropomus	305, 306	rhothea	383
Centropomus lucioperca	305	semiscabra centropleuræ	383
Sciæna	305	spilota	385
undecim-radiatus, Centropomus	305	tenuis	384
underwoodi, Herichthys	423	wheeleri	384
Rhamdia	158	uranidea, Cottogaster	285
Tomocichla	423	Etheostoma (Cottogaster)	285
undulata, Perca	349	uranops, Phenacobius	142
Umbrina	350	Uranoscopidae	454
undulatus, Menticirrhus	350	Uranoscopus anoplos	454
Micropogon	349	y-græcum	454
Ostracion	497	uranoscopus, Ceratius	508
Rhinochatus	23	Mancalias	508
Scomber	258	urichi, Cæcorhamdia	158
undulosus, Serranus	315	Uriphecton	309
unerak, Ophidium	477	Urobatis	29
Unibranchiptera	76	concentricus	30
grisea	76	halleri	29
immaculata	76	nebulosus	30
lineata	76	sloani	29
marmorata	76	vermiculatus	29
unicolor aberrans, Hypoplectrus	321	umbrifer	30
accensus, Hypoplectrus	321	vermiculatus	30
affinis, Hypoplectrus	321	Urocentrus	467
Amnoecetes	9	uroconger	81
Balistes monoceros	496	varidens	81
bovinus, Hypoplectrus	321	vicinus	81
Bryttus	259	Urolophus aspidurus	30
Chaetodon	360	asterias	30
chlorurus, Hypoplectrus	321	goodiei	30
crocotus, Hypoplectrus	321	halleri	30
gemma, Hypoplectrus	321	nebulosus	30
gummigutta, Hypoplectrus	321	rogersi	30
guttavarius, Hypoplectrus	321	umbrifer	30
Hypoplectrus	321	Uronectes	478
indigo, Hypoplectrus	321	Urophycis	213
Muræna	90	chesteri	213
nigricans, Hypoplectrus	321	chuss	213
Perca	321	floridanus	213
pinnivarius, Hypoplectrus	321	regius	213
puella, Hypoplectrus	321	tenuis	213

List of scientific names—Continued

	Page		Page
urophthalmus, Heros.....	418	veliger, Histioclinus.....	466
Uropsetta.....	223	velox, Carcharhinus.....	16
Uropterygius.....	94	Chiola.....	145
necturus.....	94, 95	Euleptorhamphus.....	198
urophthalmus, Parapetenis.....	418	Sarda.....	259
Urotrygon.....	30	venadorum, Mycteroperca.....	314
aspidurus.....	30	Venefica.....	82
goodei.....	30	ocella.....	82
mundus.....	30	procera.....	82
Urovis.....	28	tentaculata.....	82
ursinus, Salmo.....	60	venenosa, Perca.....	313
urus, Bubalichthys.....	102	venosa, Meletta.....	42
Carpiodes.....	102	venosus, Aluterus.....	495
Ietiobius.....	102	Trisotropis.....	313
ustus, Callyodon.....	431	ventralis, Bathytrochus.....	166
Cryptotomus.....	431	Brommophycis.....	480
utab, Salmo.....	76	Citharichthys.....	220
utawana, Catostomus.....	105	Cottus.....	389
uter, Catulus.....	12	Eucrotus.....	267
Cephaloscyllium.....	12	Novaculichthys.....	430
		Ogilbia.....	180
vacca, Carpiodes.....	103	Trichopsetta.....	220
Damalichthys.....	412	Xyrichtys.....	430
Vacuogua.....	345	ventricosus, Aptocyclus.....	398
macrops.....	345	Blepius.....	380, 381
sancta-lucia.....	345	Ceraticichthys.....	141
sialis.....	345	Cyclopterus.....	398
subaequalis.....	345	venusta, Cyprinella.....	130
vafar, Myrophis.....	83	Emmeekia.....	428
vagans, Katsuwonus.....	258	Erogala.....	130
Thynnus.....	258	Limia.....	174
vagrans, Chirostoma.....	248	venustus, Dinemus.....	234
Kirtlandia.....	248	Hesperoleucus.....	122
lacinata, Menidia.....	218	Pseudojulis.....	428
vahlili, Lycodes.....	474	Xyrichtys.....	430
vairiensis, Scorpa.....	431	vera-crucis, Bairdiella.....	346
vaillanti, Pteroplatea.....	29	Neotor.....	346
Vaillantia.....	288	verany, Cybium.....	256
camura.....	288	Verasper.....	223
chlorosoma.....	288	moseri.....	223
valenciennesi, Pteroplatea.....	29	verde, Pudiano.....	426
valenciennesi, Eretelis.....	437	verecunda, Ulocentra.....	287
Moxostoma.....	109	verecundum, Etheostoma.....	287
Smaragdus.....	441	Lepidion.....	211
Valenciennellus.....	73	Verilide.....	328
stellatus.....	73	Verilus.....	328
tripunctulatus.....	73	sordidus.....	328
vampyrus, Cephalopterus.....	32	Verma.....	84
Vandellius.....	262	kendalli.....	85
vandepolli-arubensis, Poecilia.....	193	vermelho, Pudiano.....	425
Mollinesia sphenops.....	193	vermicularis, Corvina.....	328
Poecilia.....	193	Sigmurus.....	348
vandoisulus, Clinostomus.....	121	Sparus.....	327
Leuciscus.....	121	vermiculatus, Esox.....	173
vanhyningi, Signalosa atchafalaye.....	47	Exocoetus.....	202
varia, Perca.....	317	Urobatis.....	29
variabilis, Dioplites.....	288	sloani.....	29
Perca.....	365	Xyrichtys.....	430
Pomacentrus.....	413	vermiformis, Neoconger.....	81
variata, Etheostoma.....	589	Oxyurus.....	79
variatus, Characodon.....	183	vernalis, Clupea.....	42
Platycephalus.....	193	Gobio.....	137
Poecilichthys.....	289	Hydrargyrum.....	176
varidens, Uroconger.....	81	Hyodon.....	40
variegata, Batrachoides.....	487	Scomber.....	257
Loricaria.....	161	vernallus, Batrachoides.....	487
Muraena.....	93	verreauxi, Conger.....	79
Salpa purpureceus.....	327	verres, Balistes.....	462
Skiffia.....	183	Lutjanus.....	425
variegatus, Cyprinodon.....	181	Sufflamen.....	492
Limnurgus.....	182	verrilli, Gymnothorax.....	93
Orbis laevis.....	499	Sidera.....	93
Pachylabrus.....	411	verrilli, Brommophycis.....	480
Sargus.....	338	Lycenchelys.....	475
varius, Malacoctenus.....	459	Lycodes.....	475
Mora moro.....	494	Ogilbia.....	480
Myxodes.....	459	verrucosa, Ocea.....	394
Serranus.....	310	verrucosus, Antennarius.....	506
velatus, Ptychostomus.....	109	Brachyopsis.....	394
velleana, Atherina.....	246	Cottus.....	387
velifer, Carpiodes.....	103	Diodon.....	502
Catostomus.....	103	Myoxocephalus.....	387
Letharchus.....	86	Verrugato.....	223
Rhinichthys (Apocope).....	141	pacificus.....	324
vellera, Apocope.....	141	Verrunculus.....	492
Molva.....	192	polylepis.....	492

List of scientific names—Continued

	Page		Page
versicolor, Abramis.....	115	virginæ, Brachyostoma.....	7
Girardinus.....	191	virginalis, Salmo.....	57
Labrus.....	336	Searus.....	433
Limia.....	191	virginicus, Anisotremus.....	332
Malacoctenus.....	460	Polynemus.....	256
Myxodes.....	460	Sparus.....	322
Phytichthys.....	469	viride, Sparisoma.....	432
Pœcilichthys.....	291	viridensis, Sphyræna.....	255
Stenotomus.....	336	viridescens, Atherina.....	247
Xiphistes.....	469	Fundulus.....	176
versipunctatus, Gymnothorax.....	92	Osmerus.....	67
vertagus, Gadus.....	210	Syngnathus.....	242
verticalis, Echeineis.....	449	viridipallidus, Gobius.....	446
Pleuronichthys.....	225	viridis, Amia.....	38
verus, Conger.....	79	bahamensis, Piscis.....	433
vespertilio, Lophius.....	507	Centropomus.....	306
Ogcocephalus.....	507	Diacope.....	324
Rhinoptera.....	31	Gymnelis.....	477
verus, Carcharodon.....	20	Lutianus.....	324
vetula, Balistes.....	491	Ophidium.....	477
Searus.....	433, 434	Searus.....	432
vetulus, Parophrys.....	226	unimaculatus, Gymnelis.....	477
vexillare, Boleosoma.....	288	viscosus, Cottus.....	385
vexillaris, Pteropodus.....	369	Silurus.....	155
Sebastichthys.....	369	vitrea, Ioa.....	288
vexillarium, Holocentrum.....	236	Perca.....	282
vexillarius, Holocentrus.....	236	vitreum, Stizostedion.....	282
Vexillifer.....	486	vitreus, Pœcilichthys.....	288
vicina, Murænophis.....	92	vitta, Xyrinichthys.....	430
vicinalis, Icelus.....	378	vittata, Aztecula.....	143
vicinus, Gymnothorax.....	92	Channomurena.....	95
Uroconger.....	81	Clupea.....	41
victoria, Moxostoma.....	109	Codoma.....	143
Vieja.....	433, 434	Echeineis.....	449
Vigil.....	288	Gambusia.....	186
clarus.....	288	Hemitremia.....	121
pellucidus.....	288	Inermia.....	340
vivax.....	288	Lepidomeda.....	147
vigil, Ioa.....	288	Limia.....	191
vigilax, Ceratichthys.....	144, 145	Poecilia.....	191
Villarius.....	152	vittatus, Ammodytes.....	451
pricei.....	153	Catostomus.....	109
villosa, Clupea.....	66	Cyprinus.....	140
Fistularia.....	245	Esox.....	173
villosus, Cottus.....	393	Gobiesox.....	489
Hemitripterus.....	393	Ichthyophis.....	95
Mallotus.....	66	Leuciscus.....	128
vincente, Sicydium.....	447	Proceros.....	36
vinciguerra, Exocoetus.....	200	Sarchirus.....	36
Exonotus.....	200	Siphateles.....	122
Vinciguerra.....	73	Sparus.....	332
attenuata.....	73	Symbranchus.....	76
lucetia.....	73	vitula, Sargus.....	338
nimbaria.....	73	vitulinum, Plectropoma.....	321
vineta, Xurel.....	272	vitulinus, Hypoplectrus unicolor.....	321
vinetipes, Nonostoma.....	289	vitulus, Carpiodes.....	102
vinetus, Blennius.....	461	vivanet, Bodianus.....	325
Caranx.....	272	vivanus, Anthias.....	322
Fundulus.....	176	Hemianthias.....	322
vinolentus, Lethotremus.....	398	Lutianus.....	326
viola, Antimora.....	211	Mesoprion.....	326
Eques.....	353	vivax, Ammocrypta.....	288
Haloporphyrus.....	211	Ciliola.....	145
Pareques.....	353	Vigil.....	288
violaceus, Apodichthys.....	466	Vivero.....	312
Cebidichthys.....	466	vivipara, Poecilia.....	190
Escolar.....	260	viviparus, Lophius.....	504
Thysitops.....	260	Sebastes.....	364
virens, Gadus.....	209	vlaamingii, Coryphæna.....	265
Pollachius.....	209	Vogmarus.....	216
Searus.....	433	vogmarus, Trachypterus.....	216
Thalassoma.....	429	volador, Exocoetus.....	200
virescens, Apodichthys.....	467	Istiophorus.....	263
Clupea.....	42	Rubio.....	407
Eigenmannia.....	101	volitans, Dactylopterus.....	409
Eriscion.....	356	Exocoetus.....	200
Gymnothorax.....	92	Trigla.....	409
Otolithus.....	256	volucella, Hybopsis.....	133
Pantosteus.....	105	volucellus, Hybognathus.....	133
Sternarchus.....	101	Vomer.....	274
virgata, Coryphæna.....	265	brasiliensis.....	275
Nivicola.....	292	brownii.....	275
virgatus, Delolepis.....	472	cayennensis.....	275
Pœcilichthys.....	292	columbianus.....	275
virgatulus, Gobiesox.....	489	cuba.....	275

List of scientific names—Continued

	Page		Page
Vomer curtus.....	275	williamsoni cismontanus, Coregonus.....	65
declivifrons.....	275	Prosopium.....	65
dominicensis.....	275	williamsoni, Coregonus.....	65
dorsalis.....	275	Ctenodax.....	269
gabonensis.....	275	Gasterosteus.....	237, 238
goreensis.....	275	Prosopium.....	65
martiniensis.....	275	willoughbyi, Acrotus.....	269
novæ-boracensis.....	275	willoughbei, Trematopsis.....	503
sanctæ-marthæ.....	275	willoughbeii, Balistes.....	493
sanctæ-petri.....	275	Canthidermis.....	493
senegalensis.....	275	Trematopsis.....	503
setapinnis.....	275	wilsoni, Acontmentum.....	366
cubensis.....	275	Cottus.....	385
spixii.....	275	Oceanomyzon.....	8
vomer, Argyreolus.....	275	Phenagoniates.....	95
Zeus.....	275	Sebastodes.....	366
vomerina, Atherina.....	250	winehelli, Hybopsis.....	133
Chirostoma.....	250	woolmani, Paralichthys.....	224
vomerinus, Anarrhichas.....	472	wrayi, Gambusia.....	186
Salarias.....	464	wrighti, Etheostoma.....	285
vorax, Mesoprius.....	328	Istiophorus.....	263
Pseudorhombus.....	224	wurdeimanni, Gobius.....	441
Ptychocheilus.....	114	wyandotte, Typhlichthys.....	195
vulgaris, Acanthus.....	21		
Ameiurus.....	153	xænocephalus, Hybopsis.....	127
Conger.....	79	Hydrophlox.....	127
Gunnellus.....	467	xænura, Erogala.....	130
Lumpus.....	398	xænurus, Minnilus.....	130
Molva.....	212	xaliscone, Xenendum.....	184
Pagrus.....	337	xaniurus, Catulus.....	12
Pimelodus.....	153	Pristiurus.....	12
Pomotis.....	302	Xanthichthys.....	493
Sphyræna.....	255	lineopunctatus.....	493
Spinachia.....	239	ringens.....	493
Squatina.....	22	xanthocephalus, Silurus.....	154
Trigonobatus.....	28	xanthogrammus, Upeneus.....	343
vulnerata, Apocope.....	141	xanthomelas, Anguilla.....	77
vulneratus, Nthonotus.....	290	xanthops, Odontoscion.....	344
Pencilichthys.....	290	xanthopteron, Hæmulon.....	330
Vulpecula.....	18	xanthopus, Catostomus.....	107
marina.....	18	xanthostieta, Mycteroperca bonaci.....	314
vulpecula, Galeus.....	18	xanthostiectus, Trisotropis bonaci.....	314
vulpeculus, Pimelodus.....	154	xanthostigma, Citharichthys.....	218
Vulpes bahamensis.....	39	xanthostigmus, Citharichthys.....	218
vulpes, Albula.....	39	xanthulum, Cynoscion.....	356
Esox.....	39	xanthulus, Eriscion.....	356
Pimelodus.....	152	Leiostomus.....	349
Squalus.....	18	Pomacentrus.....	413
vulpinus, Alopia.....	18	Sparus.....	336
Squalus.....	18	xanti, Labrisomus.....	459
Vulsciulus.....	406	Rypticus.....	316
imberbis.....	406	Umbrina.....	350
vulus, Agonus.....	395	Xenichthys.....	324
Stelgis.....	395	Xantocles.....	375
vultharius, Acipenser.....	34	frenatus.....	375
		xantops, Odontoscion.....	334
wabashensis, Anguilla.....	77	xantusi, Lepidopus.....	262
wachna, Gadus.....	210	xenarcha, Mycteroperca.....	314
wagneri, Pimelodus.....	157	Xenarchi.....	215
Rhandaia.....	157	xenarchus, Trisotropis.....	314
walkeri, Selanionius.....	19	Xenatherina.....	249
warreni, Boleichthys.....	294	lisa.....	249
Salmo.....	55	xenauchen, Galeichthys.....	150
watauga, Erismystax.....	138	Xenendum.....	183
Hybopsis.....	138	caliente.....	184
webbi, Nemabrama.....	234	multipunctatum.....	183
webbii, Bleannophis.....	464	xaliscone.....	184
Embiotoca.....	411	Xeneretmus.....	396
Ophioblennius.....	464	infraspinctus.....	396
weberi, Xenogobius.....	442	leiops.....	396
welaka, Notoptis.....	124	ritteri.....	396
welsh, Otophidium.....	486	triacanthus.....	396
wheatlandi, Gasterosteus.....	238	Xenichthyidae.....	324
wheeleri, Uranidea.....	384	Xenichthys.....	324
whipplei alabamæ, Etheostoma.....	292	californiensis.....	324
whippili alabamæ, Etheostoma.....	292	xanti.....	324
Boleichthys.....	292	xenops.....	324
Carcharias.....	292	xenicus, Fundulus.....	180
Cyprinella.....	129	Xenisma.....	179
Erogala.....	129	catenatum.....	179
whitai, Balsadichthys.....	183	stellifer.....	179
Gonia.....	183	xenisma, Gurnardus.....	406
Salmo.....	50	Prionotus.....	406
wilderi, Lampetra.....	9	Xenistius.....	324
williamsi, Synphurus.....	231	californiensis.....	324

List of scientific names—Continued

	Page		Page
Xenoberyces	232	Xurel melampygus	272
Xenocara	160	stellatus	273
chagresi	160	tenebrosus	273
Xenochirus	396	vincta	272
alascanus	396	xyosterna, Stellerina	394
latifrons	396	xyosternus, Brachyopsis	394
pentacanthus	396	Xyrauchen	108
triacanthus	396	texanus	108
Xenodermichthys	53	uncompahgre	108
copei	53	Xyrichthys	430
nodulosus	53	binghami	430
xenodon, Calotomus	431	infirmus	430
Leptoscarus	431	jessiae	429
Xenognathus	52	martinicensis	430
profundorum	52	modestus	430
Xenogobius	442	mundiceps	430
weberi	442	pavoninus	430
Xenomi	172	psittacus	430
Xenomystax	81	rosipes	430
atrarius	81	ventralis	430
rietus	81	venustus	430
Xenophallus	190	vermiculatus	430
umbrellalis	190	vitta	430
xenops, Xenichthys	324	xyris, Scorpaenoides	370
xenopterus, Cypselurus	202	Sebastopsis	370
Exocoetus	202	Xyrula	429
Xenopterygii	488	jessiae	429
Xenophthalmichthys	69	Xystæna	341
dane	69	havana	342
Xenopyxis	396	Xyster	339
latifrons	396	xyster, Zapteryx	24
leiops	396	Xysterus	339
ritteri	396	Xystes	395
Xenorhynchichthys	254	axinophrys	395
xenostethus, Sternias	380	Xystophorus	278
Triglops	380	Xystramia	296
Xenotis	300	pandionis	296
aureolus	300	Xystreurus	223
lythrochloris	300	liolepis	223
megalotis	300	xystrodon, Sparisoma	431
occidentalis	301	Xystroperca	315
Xererpes	467	pardalis	315
fucorum	467	Xystroplites	301
Xesurus	363	gillii	302
clarionis	363	longimanus	302
punctatus	363	pallidus	302
Xiphias	264	Xystrosus	142
gladius	264	popoche	142
imperator	264	xysturus, Myrichthys	85
rondeletti	264	Ophisurus	85
Xiphidion	369		
mucosum	469	yaito, Euthynnus	259
Xiphidium cruceum	469	yalei, Ostracion	497
Xiphiidae	264	Yarella	72
Xiphiiformes	263	blackfordi	72
Xiphister	469	yarrowi, Agosia	141
chirus	469	Apocope	141
mucosus	469	y-cauda, Gillichthys	444
rupestris	469	Quietula	444
Xiphisteridae	469	y-græcum, Astroscopus	454
Xiphistes	469	Uranoscopus	454
ulvæ	469	yucatana, Gambusia	186
versicolor	469	yuma, Gobiesox	490
Xiphophorus	193	Yuriria	137
bimaculatus	187	alta	137
brevis	194		
gracilis	185	zacentrus, Hispanicus	368
güntheri	193	Sebastichthys	368
helleri	193	zachirus, Errex	228
brevis	194	Glyptocephalus	228
güntheri	193	Zaclemus	351
rachovii	193	goodei	351
strigatus	193	zadockii, Cyliandrosteus	37
jalapæ	193	Zalarges	73
montezuma	194	nimbarius	73
rachovii	193	Zalembius	410
strigatus	193	rosaceus	410
Xiphostomidae	100	Zalleutes	507
Xiphothea	262	elater	507
Xurel	272	Zalocys	277
fasciatus	272	stilbe	277
lata	272	Zalopyr	365
lugubris	273	aleutianus	365
marginatus	272	atrorubens	365
medusicola	272	atrovirens	365

List of scientific names—Continued

	Page		Page
Zalypnus.....	443	zonale arcansanum, Etheostoma.....	289
Zanclidae.....	362	Nanostoma.....	289
Zanclurus.....	263	zonalis, Poeclichthys.....	289
Zanclus.....	362	zonata, Elasmoma.....	305
centrognaethos.....	362	Heterandria.....	191
cornutus.....	362	Seriola.....	279
zanclus, Dermatolepis.....	313	zonatum, Cichlasoma.....	417
zanemus, Ceratichthys.....	138	Elasmoma.....	305
Zaniolepidæ.....	375	zonatus, Alburnus.....	128
Zaniolepis.....	375	Chaetodipterus.....	358
frenatus.....	375	Cœcotis.....	128
latipinnis.....	375	Ephippus.....	358
Zanotacanthus.....	76	Esox.....	176
Zaphotias.....	72	Fundulus.....	178
pedialotus.....	72	Scomber.....	279
Zaprora.....	452	Theraps.....	417
silenus.....	452	Zygonectes.....	177
Zaproridæ.....	452	Zonichthys.....	279
Zapteryx.....	24	falcatu.....	280
exasperatus.....	24	fasciatus.....	279
xyster.....	24	mazatlanus.....	279
zebra, Hemilepidotus.....	381	rivulatus.....	280
Zetomus.....	70	zonifer, Clinus.....	459
scintillans.....	70	Erilepis.....	373
zetropis, Siphostoma.....	243	Myrilepis.....	373
zebra, Acanthurus.....	362	Zygonectes.....	178
Acanthosa.....	491	zonipectus, Pomacanthodes.....	361
Fundulus.....	176	zonistius, Cœcotis.....	128
Gerres.....	342	Luxilus.....	128
Gobiesox.....	491	Zonogobius.....	441
Gobius.....	441	zebra.....	441
Hypoclinemus.....	139	zebra, Hemilepidotus.....	381
Percina.....	283	Zonoscion.....	351
Pileoma.....	283	rathbuni.....	351
Plancterus.....	179	zonurus, Malacoœcetus.....	388
Psychrolutes.....	392	Zoogoneticus.....	182
Zonogobius.....	441	diaz.....	182
zebrinus, Fundulus.....	179	dugesii.....	182
Zeidæ.....	232	maculatus.....	182
zeleles, Dietyloscopus.....	455	minutus.....	182
Esoscopus.....	455	quitzeensis.....	182
Hemicarax.....	571	robustus.....	182
Zenion.....	232	Zophendum.....	140
hololepis.....	232	australe.....	116
zenithiens, Argyrocentrus.....	64	zopherus, Potamocottus.....	385
Leucichthys.....	64	zophichir, Ophichthys.....	88
Zenopsis.....	232	Ophichthys.....	88
ocellata.....	232	zostera, Hippocampus.....	244
Zenoides.....	232	zosterura, Evertmannia.....	445
zephyreus, Astroscopus.....	451	zosterurum, Gobiosoma.....	445
Pristis.....	23	zinnensis, Leuciscus.....	114
Zesticeus.....	392	Zygæna.....	18
fundorum.....	392	lewini.....	18
Zetidium.....	347	malles.....	18
colonense.....	347	subarcuata.....	18
ilicebrosum.....	347	tudes.....	18
Zetia.....	347	zygæna, Sphyra.....	18
furthii.....	347	Squalus.....	18
melanocheir.....	347	Zygobatis.....	31
oseitans.....	347	Zygonectes.....	177
zestocarus, Stellicarus.....	347	atrilatus.....	184
Stelliferus.....	347	auroguttatus.....	177
zestus, Nebris.....	354	chrysotus.....	177
Zeus capillaris.....	275	cingulatus.....	171
cristatus.....	274	craticula.....	171
gallus.....	274	diaphanus.....	171
gambusia.....	274	menoni.....	171
guttatus.....	274	mexicanus.....	171
imberbis.....	274	occambinus.....	178
leucis.....	274	extensus.....	179
maculatus.....	274	funduloides.....	176
quadratus.....	274	guttatus.....	178
rubicundus.....	274	henshalli.....	177
sordidus.....	274	maculatus.....	178
striatus.....	274	inurus.....	185
tricolor.....	274	pinkini.....	178
vittatus.....	274	lateralis.....	177
zebra.....	274	limi.....	178
zebra, Hemilepidotus.....	381	lineatus.....	177
zebra, Acanthurus.....	362	maculatus.....	178
zebra, Hemilepidotus.....	381	maculatus.....	177
zebra, Hemilepidotus.....	381	maculatus.....	175

List of scientific names—Continued

	Page		Page
<i>Zygonectes melapleurus</i>	178	<i>Zygonectes scartes</i>	177
(<i>Micristius</i>) <i>brachypterus</i>	185	<i>sciadicus</i>	177
<i>notatus</i>	177	<i>seminolis</i>	178
<i>nottil</i>	178	<i>zonatus</i>	177
<i>pulchellus</i>	177	<i>zonifer</i>	178
<i>pulvereus</i>	178	<i>zygopterus</i> , <i>Galeorhinus</i>	14
<i>rathbuni</i>	179	<i>Zypothyca</i>	261
<i>rubrifrons</i>	177		



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